CHAPTER 8

Meat



PURCHASING AND STORAGE

The quality of cooked meat depends on the quality purchased, the storage and handling of meat after delivery, and cooking methods. All meats marketed in interstate commerce in the United States must meet federal inspection standards for wholesomeness. This requirement covers all processed meat products and fresh and frozen meats. Meat slaughtered, processed, and sold within a given state must be inspected by programs "at least equal to" federal inspection standards.

Quality grading helps predict the palatability of meat. Beef grades are based on two factors: the amount of marbling present and the age of the animal. Quality grades for young cattle include (from best to least) Prime, Choice, Select, and Standard. Each grade denotes a specific level of quality as determined by the USDA. Yield grading is a system that estimates the percentage of boneless and closely trimmed foodservice cuts that can be obtained from a beef carcass. These grades identify carcasses for differences in cutability or yield and are applied by the USDA grading service. Possible yield grades are (best to worst) 1 through 5.

Meat for foodservice use is available in wholesale (primal) cuts, subprimals, and portioned cuts. The chuck, loin, rib, and round are the major wholesale cuts of beef, making up 76 percent of the carcass. Other beef primal cuts are brisket, flank, foreshank, and plate. Pork primal cuts are belly, loin, shoulder, and leg or ham. Subprimals are produced by breaking down the primals into smaller cuts. Portioned cuts are processed from subprimals into individual steaks, chops, and other products. Table 8.1 identifies common names and suggested cooking methods for beef cuts. Portioned cuts have several advantages for the foodservice operator: Less skilled labor is needed by the operator, the product is more uniform, the actual amount of product needed can be prepared and costs can more easily be controlled, and packaging often allows for safer, more efficient storage. Storing meat in a refrigerator at a cold temperature is necessary to retard bacterial growth and slow the action of muscle enzymes. Fresh meat may be stored unwrapped or loosely covered with waxed paper at a temperature of 28°–32°F, with a relative humidity of 85 to 90 percent. Meat should be used as soon after purchase as possible, not more than 3 to 4 days later. Fresh meat stored in vacuum packaging will keep approximately 21 days in the refrigerator. Vacuum-packaged meat should be stored according to the processor's recommendations. Once removed from the vacuum package, the meat should be used within 3 to 4 days.

Frozen meat requires a uniform holding temperature of 0°F or below. It should be well wrapped to exclude air and keep the moisture in. Fresh meat frozen at 0°F may be successfully stored for 6 months, and fresh beef frozen at −10°F for a year. Frozen meat should be kept wrapped while defrosting in a refrigerator at 30°–35°F and should be cooked soon after defrosting. Once thawed, it should not be refrozen. Refreezing will result in some moisture loss and could pose a health risk if the total thawed time exceeds acceptable standards. Cooked meat may be frozen provided it is frozen soon after cooking and cooling.

Cured meats and cured and smoked meats such as ham and bacon, sausages, and dried beef require refrigerator storage. Although ham, bacon, and other cured meats can be frozen, freezing should only be for short periods, since undesirable flavor changes occur because of their salt, spice, and fat content.

TABLE 8.1 Names and suggested cooking methods for beef cuts

Beef cut	*Also known as . . .*	*Stir-fry*	*Sauté*	*Panbroil*	*Broil*	*Grill*	*Braise*
CHUCK							
Top Blade Steak, Boneless	Book Steak, Butler Steak, Lifter Steak, Petite Steak, Top Chuck Steak Boneless	X	X	X	X	X	X
Shoulder Steak, Boneless	Clod Steak, English Steak, London Broil, Shoulder Steak Half Cut		X[a]	X[a]	X[a]	X[a]	X
Chuck Arm Steak	Arm Swiss Steak, Chuck Steak for Swissing, Round Bone Steak						X
Chuck Eye Steak, Boneless	Boneless Chuck Fillet Steak, Boneless Steak Bottom Chuck, Boneless Chuck Slices	X	X	X	X	X	X
Chuck Mock Tender Steak	Chuck Eye Steak, Chuck Fillet Steak, Fish Steak, Chuck Tender Steak						X
Chuck 7-Bone Steak	Center Chuck Steak				X[a]	X[a]	X
RIB							
Rib Steak		X	X	X	X	X	
Rib Eye Steak	Beauty Steak, Delmonico Steak, Fillet Steak, Spencer Steak	X	X	X	X	X	
PLATE							
Skirt Steak	Fajita Meat, Inside Skirt Steak, Outside Skirt Steak, Philadelphia Steak		X[a]	X[a]	X[a]	X[a]	X
SHORT LOIN							
T-bone/Porterhouse Steak			X	X	X	X	
Tenderloin Steak	Filet Mignon, Fillet De Bouef, Fillet Steak, Tender Steak	X	X	X	X	X	
Top Loin Steak, Boneless	Ambassador Steak, Strip Steak, Boneless Club Steak, Hotel Style Steak, Kansas City Steak, New York Strip Steak, Veiny Steak	X	X	X	X	X	
Top Loin Steak, Bone-in	Chip Club Steak, Club Steak, Country Club Steak, Delmonico Steak, Shell Steak, Sirloin Strip Streak, Strip Steak	X	X	X	X	X	

continues

COOKING METHODS

Meat is cooked by either dry or moist heat. The method used will depend on the grade and location of the cut. Meat cuts containing relatively small amounts of connective tissue are cooked by dry heat (roasting, broiling, or frying). Moist heat (braising or cooking in liquid) is used for less tender cuts that have larger amounts of connective tissue. Veal, lamb, and pork, all tender meats, often are cooked with moist heat to develop their flavor and to provide variety in menu items. Veal, because of its delicate flavor and low fat content, combines well with sauces and other foods.

TABLE 8.1 *continued*

Beef cut	*Also known as . . .*	*Stir-fry*	*Sauté*	*Panbroil*	*Broil*	*Grill*	*Braise*
SIRLOIN							
Sirloin Steak	Flat Bone Steak, Pin Bone Steak, Round Bone Steak, Wedge Bone Steak	X	X	X	X	X	
Top Sirloin Steak, Boneless	Sirloin Butt Steak, Top Sirloin Butt Center Cut Steak	X	X	X	X	X	
Tri-Tip Steak	Triangle Steak	X	X	X	X	X	
FLANK							
Flank Steak	Flank Steak Filet, Jiffy Steak, London Broil	X			X[a]	X[a]	X
ROUND							
Round Tip Steak, Thin Cut	Ball Tip Steak, Beef Sirloin Tip Steak, Breakfast Steak, Knuckle Steak, Sandwich Steak, Minute Steak	X	X	X			
Round Steak	Full-cut Round Steak						X
Top Round Steak	Top Round London Broil	X	X[a]	X[a]	X[a]	X[a]	
Eye Round Steak				X[a]		X[a]	X
OTHER CUTS							
Cubed Steak		X	X	X			X
Chopped Steak			X	X	X	X	

From National Cattlemen's Beef Association, *The Complete Take On Steak: The Food Professional's Handbook* (Chicago, 1997).

[a] Marinate before cooking.

Dry-heat cooking does not improve tenderness; under some conditions, it reduces tenderness. Cooking with moist heat tends to soften some connective tissue and to make meat tender. The degree of doneness affects percentage losses, with a smaller loss in rare meat than in medium or well-done meat, provided other factors are the same. Faster cooking rates, complete trimming of external fat, and lengthy post-cooking holding periods may substantially increase cooking and holding loss.

Roasting

The term *roasting*, which is a dry-heat method, refers to cooking meat in an oven, in an open pan, with no moisture added. Meat cuts must be tender to be roasted. In beef, these are the less-used muscles, or those attached to the backbone. Most veal, pork, and lamb cuts may be cooked by this method.

Meats may be completely or partially defrosted or frozen at the time the cooking process is begun. Research has shown that meat roasted from the frozen state will yield as much meat as roasts partially or completely thawed before cooking. However, when time is a factor, defrosting meat before cooking is the accepted method. The additional cooking time required for frozen roasts is from one-third to one-half again the amount of time recommended for cooking a similar cut from the chilled state. Oven temperature should not change. Steps in roasting are as follows:

1. Place the meat, fat side up, on a rack in an open roasting pan. As the fat on top melts and runs down over the meat, it bastes the roast. Basting adds flavor and keeps the surface of the roast from drying out.
2. Toward the end of the roasting period, insert a meat thermometer in the roast so that the tip rests in the center of the cut but does not rest on bone or fat.
3. Season the roast with salt, pepper, and other spices. See p. 591 for Seasoned Salt recipe. Salt penetrates less than an inch during cooking, so it makes little difference whether the roast is seasoned at the beginning of, during, or at the end of cooking.

TABLE 8.2 Timetable for roasting beef

Beef cut	*Oven temperature (preheated)*	*Weight (pounds)*	*Approx. total cooking time (based on meat removed directly from refrigerator)*		*Remove roast from oven when internal temperature reaches (F°):*
Rib Eye Roast, small end	350°F	3 to 4	Medium rare: Medium:	1½–1¾ hr 1¾–2 hr	135 150
		4 to 6	Medium rare: Medium:	1¾–2 hr 2 to 2½ hr	135 150
		6 to 8	Medium rare: Medium:	2–2¼ hr 2½–2¾ hr	135 150
	325°F	8* to 10*	Medium rare: Medium:	2½–3¼ hr 3–3¾ hr	135 145
Rib Eye Roast, large end	350°F	3 to 4	Medium rare: Medium:	1¾–2¼ hr 2–2½ hr	135 150
		4 to 6	Medium rare: Medium:	2–2½ hr 2½–3 hr	135 150
		6 to 8	Medium rare: Medium:	2¼–2½ hr 2¾–3 hr	135 150
Rib Roast, chine bone removed	350°F	4 to 6 (2 ribs)	Medium rare: Medium:	1¾–2¼ hr 2¼–2¾ hr	135 150
		6 to 8 (2 to 4 ribs)	Medium rare: Medium:	2¼–2½ hr 2¾–3 hr	135 150
		8 to 10 (4 to 5 ribs)	Medium rare: Medium:	2½–3 hr 3–3½ hr	135 150
Tenderloin Roast, well trimmed	425°F	2 to 3 (center cut)	Medium rare: Medium:	35–40 min 45–50 min	135 150
		4 to 5 (whole)	Medium rare: Medium:	50–60 min 60–70 min	135 150
Round Tip Roast, cap off	325°F	3 to 4	Medium rare: Medium:	1¾–2 hr 2¼–2½ hr	140 155
		4 to 6	Medium rare: Medium:	2–2½ hr 2½–3 hr	140 155
		6 to 8	Medium rare: Medium:	2½–3 hr 3–3½ hr	140 155
		8* to 10*	Medium rare: Medium:	3–3¾ hr 3¾–4½ hr	135 150
Top Round Roast	325°F	6* to 8*	Medium rare:	2½–3 hr	135
		8* to 10*	Medium rare:	3–3¾ hr	135
Eye Round Roast	325°F	2 to 3	Medium rare:	1½–1¾ hr	135
Tri-Tip Roast	425°F	1½ to 2	Medium rare: Medium:	30–40 min 40–45 min	135 150

Medium rare doneness = 145°F final internal temperature after 15 to 20 minutes standing time.
Medium doneness = 160°F final internal temperature after 15 to 20 minutes standing time.

From the National Cattlemen's Beef Association (reviewed 2000).
Information based on consumer roasting data. Cooking times and temperatures for quantity production may vary depending on the roast size, number of roasts in the oven, temperature of roast before cooking, and equipment.
During standing time, roasts wil continue to rise 5°–10°F.

*Tent loosely with aluminum foil halfway through roasting time.

TABLE 8.3 Timetable for roasting lamb and veal

Cut	*Approximate weight (pounds)*	*Oven temperature (°F)*	*Interior temperature of roast when removed from oven (°F)*[ab]	*Minutes per pound based on one roast*	*Approximate total cooking time (hours)*
Lamb					
Leg, shank off, No. 233C	5–7	325	140 (rare)	15–20	1¾–2½
			145 (medium rare)	20–25	1¾–3
			155 (medium)	25–30	3–3½
Leg, shank off, boneless, No. 233D	4–7	325	140 (rare)	20	1½–2½
			145 (medium rare)	25	1¾–3
			155 (medium)	25–30	2–3½
Shoulder, boneless and tied, No. 208	3½–6	325	140 (rare)	30	2–2½
			145 (medium rare)	35	2¼–3
			155 (medium)	40	2½–3½
Rib rack, No. 204	1½–2½	375	140 (rare)	30	¾–1
			145 (medium rare)	35	1–1¼
			155 (medium)	40	1–1½
Rib rack, No. 204	2–3	375	140 (rare)	25	1–1¼
			145 (medium rare)	30	1¼–1½
			155 (medium)	35	1½–1¾
Veal					
Loin roast	3–4	300–325	155 (medium)	34–36	1¾–2⅓
			165 (well)	38–40	2–2⅔
Loin roast, boneless	2–3	300–325	155 (medium)	18–20	¾–1
			165 (well)	22–24	¾–1¼
Rib roast	4–5	300–325	155 (medium)	25–27	1⅔–2¼
			165 (well)	29–31	2–2½
Crown roast (12–14 ribs)	7½–9½	300–325	155 (medium)	19–21	2¼–3¼
			165 (well)	21–23	2½–3½
Rib Eye roast	2–3	300–325	155 (medium)	26–28	1–1½
			165 (well)	30–33	1–1⅔
Rump roast, boneless	2–3	300–325	155 (medium)	33–35	1–1¾
			165 (well)	37–40	1¼–2
Shoulder roast, boneless	2¼–3	300–325	155 (medium)	31–34	1¼–1½
			165 (well)	34–37	1¼–1¾

Compiled from materials by National Cattlemen's Beef Association, Veal Committee, and American Lamb Council materials (reviewed 2000).

[a] For safety, lamb and veal must reach a temperature of 145°F or above for 15 seconds.
[b] During the required 15–20 minute standing time, temperature will rise 5°F.

4. Do not add water and do not cover roast. Adding water to the pan changes the cooking method from dry to moist heat.
5. Roast at a constant oven temperature, 250°–325°F, depending on the kind of meat and size of roast. High heat, 375°–425°F, is used for small cuts of very tender meat that cook quickly. Meats cooked at high temperatures will have more carmelization and greater shrinkage. If cooking in a convection oven, the temperature should be reduced by 50°F to minimize drying of the roast's surface by moving air. Searing the roast initially at a high temperature does not hold in meat juices and may increase cooking losses. A constant low temperature reduces shrinkage and produces a more evenly done roast that is easier to carve and more attractive to serve.
6. Roast to the desired degree of doneness. The length of the cooking period depends on several factors: oven temperature, size and shape of the roast, style of cut (boned or bone in), oven load, quality of meat, and degree of doneness required. Approximate cooking times and temperatures are given in Tables 8.2 through 8.5. Although approximate total cooking time can be used as a general guide, the interior temperature of the meat as measured by a thermometer or thermocouple is a more reliable indicator of doneness. Roasts will continue cooking for a period of time after removal from the oven, and the internal temperature of the roast may rise 5–10°F.

TABLE 8.4 Timetable for roasting pork in conventional oven

Cut	*Weight*	*Oven temperature (°F)*	*Food product internal temperature (°F)*	*Minutes per pound*[a]	*Approximate total cooking time*
Loin, boneless, tied	8–12 lb	325	155	17–20	2½–3½ hr
Fresh ham, boneless, tied	10–14 lb	325	155	20–25	3½–4½ hr
Spareribs (panned flat)	3 lb and down	325	well done	—	1½ hr
Loin, back ribs (shingled)	1¾–2½ lb	325	well done	—	1½ hr
Bacon, flat pack	18–22 slices/lb	400	—	—	6–8 min
Sausage	1 oz patties/ links	400	well done	—	15–20 min
Boneless cured ham, fully cooked	10–12 lb	325	140	15–18	2½–3½ hr
Boneless pork chop	4 oz	425	160	—	18–20 min
Boneless pork chop	5 oz	425	160	—	22–24 min
Boneless pork chop	6 oz	425	160	—	24–26 min
Boneless pork chop	8 oz	425	160	—	25–27 min
Bone-in pork chop	4 oz	425	160	—	10–12 min
Bone-in pork chop	5 oz	425	160	—	12–14 min
Bone-in pork chop	6 oz	425	160	—	15–17 min
Bone-in pork chop	8 oz	425	160	—	25–30 min

Compiled from materials by National Pork Producers Council (reviewed 2000).

[a] Smaller roasts require more minutes per pound than larger roasts.

TABLE 8.5 Timetable for roasting pork in convection oven

Cut	*Weight*	*Oven temperature (°F)*	*Food product internal temperature (°F)*	*Minutes per pound*[a]	*Approximate total cooking time*
Loin, boneless, tied	8–12 lb	275	155	12–15	2–2½ hr
Fresh ham, boneless, tied	10–14 lb	275	155	13–16	3–3½ hr
Whole tenderloin	¾–1 lb	425	155	—	15 min
Spareribs (panned flat)	3 lb and down	275	well done	—	60–70 min
Loin, back ribs (shingled)	1¾–2½ lb	275	well done	—	60–70 min
Bacon, flat pack	18–22 slices/lb	325	—	—	4–6 min
Sausage	1 oz patties/ links	325	well done	—	10–12 min
Boneless cured ham, fully cooked	10–12 lb	275	140	10–12	2–2½ hr
Boneless pork chop	4 oz	425	160	—	6–8 min
Boneless pork chop	5 oz	425	160	—	8–10 min
Boneless pork chop	6 oz	425	160	—	13–15 min
Boneless pork chop	8 oz	425	160	—	15–17 min
Bone-in pork chop	4 oz	425	160	—	8–10 min
Bone-in pork chop	5 oz	425	160	—	11–13 min
Bone-in pork chop	6 oz	425	160	—	13–15 min
Bone-in pork chop	8 oz	425	160	—	20–22 min

Compiled from materials by National Pork Producers Council (reviewed 2000).

[a] Smaller roasts require more minutes per pound than larger roasts.

7. After cooking, the roast should be allowed to set in a warm place for 15 to 20 minutes before being sliced. The roast becomes more firm, retains more of its juices, and is easier to slice. Tent the meat with foil to keep it warm. Slice the meat across the grain.

Meat juices will be lost if the roast is pierced with a fork during cooking or before it has set after cooking. Refrigerating the roast prior to slicing and service results in a loss of flavor. To ensure the highest quality, roasts should be served soon after cooking and slicing. Table 1.1 provides information on several yields.

Broiling

Broiling is a dry-heat method of cooking using direct or radiant heat. It is used for small, individualized, tender cuts such as steaks, chops, and patties. Low-temperature cooking methods apply to proper broiling. Broiled meats should not be seared, for searing increases broiling losses. If marking on a hot broiler rack is desired, the remainder of the broiler time after marking should be at a moderate temperature.

Broiling is most successful for cuts 1 to 2 inches thick. Veal should not be broiled unless it is fairly mature and well marbled with fat, and then only loin chops or steaks should be used. Broiling is an acceptable cooking method for pork chops, but the temperature should be moderate, so the chop does not become charred by the time it is cooked well done (160°F).

Frozen cuts may be successfully broiled, especially those 1½ inches thick or less. They should be broiled at a greater distance from the heat or at a lower temperature than unfrozen cuts to provide more uniform doneness. Although cooking times will vary, a general guideline is that frozen steaks will take nearly twice as long as unfrozen steaks.

Meat may be broiled in an oven broiler or other type of heat-from-above gas or electric broiler, or on an open hearth, which is heated from below. In pan broiling or griddle broiling, the heat is transferred from the pan or grill to the meat being cooked.

Following is the standard procedure for broiling:

1. Preheat the broiler. A preheated broiler rack will provide desired markings on the meat.
2. Place the meat on the broiler rack. A distance of 3 to 5 inches is recommended. If frozen meat is used, increase distance from the heat source.
3. Broil the meat until the side closest to the heat source is attractively browned and the cut is cooked almost half through.
4. Turn meat only once during cooking.
5. Broil second side to desired doneness. Season. See Table 8.6 for approximate time.

Pan Broiling and Griddle Broiling

1. Place meat on a preheated ungreased griddle or heavy frying pan.
2. Cook slowly, turning as necessary. Since the meat is in contact with the hot metal of the pan or griddle, turning more than once may be necessary for even cooking. If the steak is thick, reduce the temperature after browning.
3. Cook the meat at a moderate temperature. Care should be taken not to puncture the meat while cooking. Use long-handled tongs or a spatula for turning.
4. Do not add additional fat or water. Pour off or scrape away any excess fat as it accumulates.
5. Cook meat to the desired degree of doneness. See Table 8.7 for approximate cooking times.

Direct Grilling

1. Prepare charcoal grill for direct cooking and light charcoal. When coals are ash covered (in approximately 30 minutes), spread in single layer.
2. Place seasoned or unseasoned meat on grid directly over ash-covered, medium-hot coals. (Coals are medium-hot when a hand can be held at cooking height for 4 seconds before the heat forces it to be pulled away. Extreme care should be taken when measuring the temperature in this way.)
3. Grill steaks uncovered according to Table 8.8. After grilling, season beef with salt if desired and serve immediately.

Frying

Frying, a dry-heat method, is cooking in fat and may be accomplished by pan or griddle frying in a small amount of fat; by deep-fat frying, which uses a large amount of fat; or by stir-frying. Meat for frying generally is cut thinner than that for broiling and may be breaded or tenderized by scoring, cubing, or grinding.

Pan Frying or Griddle Frying

Procedures for pan frying or griddle frying are similar to pan or griddle broiling, but foods are cooked at approximately 325°F in fat that covers the bottom of the pan up to about one-fourth of the product. Meat may be dredged with seasoned flour to form a crisp crust. Pan fried items can be cooked completely during the frying process or can be browned in the pan and finished in the oven. Covering the food is not recommended because moisture must escape in order for the food to brown. Trapped moisture changes the cooking method from dry heat to moist heat.

TABLE 8.6 Timetable for broiling meat

Meat	Cut	Approximate thickness or weight (inches/weight)	Distance from heat (inches)	Approximate total cooking time (minutes): Medium rare (145°F)	Medium (160°F)	Well done[c] (170°F)
BEEF	Porterhouse/T-bone steaks	¾	2–3	10	13	
		1	3–4	15	20	
		1½	3–4	27	32	
	Rib steaks	¾	2–3	9	12	
		1	3–4	13	17	
		1½	3–4	24	31	
	Rib eye steaks	¾	2–3	8	10	
		1	3–4	14	18	
		1½	3–4	21	27	
	Top sirloin steak, boneless	¾	2–3	9	12	
		1	3–4	16	21	
		2	3–4	34	39	
	Sirloin cubes	1–1¼	3–4	8	10	
	Tenderloin steak	1	2–3	13	16	
		1½	3–4	18	22	
	Top loin steak, boneless	¾	2–3	9	11	
		1	3–4	13	17	
	Tri-tip roast (bottom sirloin)	1½–2 lb	4–5	20	30	
	Chuck shoulder steak,[a] boneless	1	3–4	16	21	
	Eye round steak	1	2–3	9		
	Top round steak[a]	1	2–3	17–18		
	Flank steak[a]	1½–2 lb	2–3	13	18	
	Ground beef patties[b]	½ × 4-in (4/lb)	3–4		10–12	
		¾ × 4-in (3/lb)	3–4		12–14	

continues

Following is the standard procedure for pan frying or griddle frying meat that is coated with flour:

1. Dredge the meat with seasoned flour, crumbs, cornmeal, or similar coatings.
2. Place breaded food in heated oil and brown. Allow the fat to remain on the griddle or in the pan as the meat cooks.
3. Do not cover meat. Cook at moderate temperature until done, turning occasionally. Additional fat may need to be added during the cooking process.
4. Drain meat and serve at once.

With the exception of cream gravy made to accompany fried chicken or country-fried steak, sauces are generally not made from the fat and liquid that remain in the pan after frying.

Sautéing

Sautéing is a cooking method for preparing small, thin pieces of moist tender meat, seafood, or high-moisture vegetables in a pan. A high temperature, small amount of fat, and short cooking time distinguish sautéing from pan or griddle frying.

Sauces are often made from the juices left in the pan after sautéing. The process of adding liquid to the pan juices to dissolve food particles or caramelized drippings left in the pan is called deglazing. Excess fat should be poured away before deglazing. Liquids suitable for deglazing a pan include stock, water, and wine. Thickening may be achieved by using a starch or by a reduction of the liquid.

Deep-Fat Frying

In deep-fat frying, the hot fat is in constant contact with the entire surface of the meat, resulting in rapid heat transfer. A portion of the fat will be absorbed and contribute to the flavor of the product. At a low temperature, absorption is much greater, resulting in a greasy, less desirable product that will not fry to an attractive golden-brown color. Overloading the fryer

TABLE 8.6 *continued*

				Approximate total cooking time (minutes)		
Meat	*Cut*	*Approximate thickness or weight (inches/weight)*	*Distance from heat (inches)*	*Medium rare (145°F)*	*Medium (160°F)*	*Well done[c] (170°F)*
PORK	Loin/rib chop (bone-in)	¾ in	3			8–11
		1½ in	5			19–22
	Boneless loin chop	1 in	3			11–13
		1½ in	5			16–18
	Boneless rib roast filet	¾ in	3–5			7–9
	Butterflied chop	1 in	3			11–13
		1½ in	5			16–18
	Blade chop (bone-in)	¾ in	3			13–15
		1½ in	5			26–29
	Shoulder chop (bone-in)	¾ in	3			16–18
		1½ in	5			18–20
	Kabobs loin/leg	1 inch pc	3–5			9–11
	Kabobs tenderloin	1 inch pc	3–5			12–14
	Tenderloin	½–1 lb	5			16–21
	Ground pork patties	½ in	3–5			7–9
	Country-style ribs	1 in slice	5			45–60
	Spareribs		5			45–60
	Back ribs		5			45–55
	Butterflied single loin roast (boneless)	3 lb	5			22–24
LAMB	Shoulder, rib, loin, and sirloin chops	5 oz	3–4	10	(150° F) 12	
		8 oz	3–4	12	(150°F) 15	
	Center leg chops	1 in	3–4	15	(150°F) 20	
	Ground lamb patties[b]	1 (4 oz)	3–4		12	15

Compiled from materials by National Cattlemen's Beef Association, National Pork Producers Council, and American Lamb Council (reviewed 2000).

[a] Marinate beef cuts 6–8 hours for best eating quality.
[b] The FDA 1999 Food Code requires ground meat be cooked to a temperature of 155°F or above for 15 seconds. USDA recommends cooking ground meat patties to 160°F.
[c] National Cattleman's Beef Association does not recommend broiling beef to 170°.

will reduce the temperature of the fat. Following is the procedure for deep-fat frying meat:

1. Coat or bread meat. (See p. 39 for methods of preparing food for deep-fat frying.) Portioned, prebreaded items may be cooked from a frozen state in the deep-fat fryer.

2. Heat the fat to approximately 350°F.

3. Place pieces of meat in the wire basket and carefully lower into the fryer. Do not fill the basket while holding over the fat, because crumbs could fall into the fat.

4. Do not overload the basket or the fryer. An overload drastically reduces the temperature of the fat, thereby increasing fat absorption and inhibiting browning. This is especially true when the product is frozen. A ratio by weight of about 5 to 1 of fat to product is the maximum effective load.

5. Continue cooking until the outside of the product is browned and crisp and the meat reaches the desired doneness. Cooking time depends on the size of the piece, whether it is frozen or chilled, and whether the meat has been precooked.

6. Remove meat from fat and let drain. Do not shake the basket over the fat if the product is coated; shaking will cause particles and crumbs to fall into the fat.

Proper care can extend the usefulness or life of deep-frying fat. Factors causing fat to break down include salt or food particles in the fat, moisture, high temperature, and prolonged heating. Some indicators that fat needs to be changed include low smoke point, foaming, dark color, and unpleasant odor or flavor.

TABLE 8.7 Timetable for griddle-broiling meat (surface 400°– 450°F)

			Approximate total cooking time (minutes)		
Meat	*Cut*	*Approximate thickness or weight (inches/weight)*	*Medium rare (145°F)*	*Medium (160°F)*	*Well done (170°F)*
BEEF	Top loin steak	¾	10	12	
	(boneless)	1	12	15	
	Rib eye steak	¾	8	10	
		1	12	15	
	Top round steak	¾	11–12	not recommended	
	(marinate)	1	15–16	not recommended	
	Top sirloin	¾	10	13	
	(boneless) steak	1	15	20	
	Tenderloin steak	½	3½	5½	
		¾	7	9	
		1	10	13	
	Ground beef patties[a]	½ × 4 (4/lb)	10	12	
		¾ × 4 (3/lb)		12–15	
LAMB	Chops	1	8–10	10–12	
		1½	10–15	15–20	
	Ground lamb patties[a]	¾		10	12–15
		1 (4 oz)		10–15	15–20
PORK	Smoked ham slice	½			6–10
	Bacon				2–3
	Boneless pork chop	½			7–8
		1			10–12
	Bone-in pork chop	½			7–8
		1			12–14

Compiled from materials by National Cattlemen's Beef Association, National Pork Producers Council, and American Lamb Council (reviewed 2000).

[a] The FDA 1999 Food Code requires ground meat be cooked to a temperature of 155°F or above for 15 seconds. USDA recommends cooking ground meat patties to 160°F.

Stir-Frying

Stir-frying consists of cooking sliced or chopped meat and vegetables in a small amount of oil over medium-high heat. Stir-frying differs from sautéing in that the food is kept moving constantly during the cooking process. Quick cooking helps retain nutrients and enhances the flavor and attractiveness of the food. Food items suitable for stir-frying are tender, small pieces of beef, pork, or poultry; seafood; or high-moisture vegetables. Soy sauce, meat glaze, and wine are suitable liquids to use for a sauce. Cornstarch and arrowroot are traditional thickeners used for sauce on stir-fried foods.

Following is the standard procedure for stir-frying:

1. Cut meat and vegetables into small, uniform pieces so they will cook quickly and evenly. Cut meat into thin slices or strips. Partially freezing meat will facilitate slicing.
2. Heat the oil in the wok or other suitable equipment.
3. Add the main ingredient or meat and stir-fry, keeping the food in constant motion. Stir and cook until the meat is done. Add additional ingredients in sequence (those that require the most cooking time first and least cooking time last). Cook only until tender crisp. When time is an issue, meat can be stir-fried in a pre-preparation step then added to each batch of vegetables toward the end of the cooking time. The quality and flavor of the final product may be inferior to a product made with freshly cooked meat.
4. Add the liquid slowly. Add thickener and cook for 3 to 5 minutes longer, just until sauce thickens. See p. 678 for cornstarch and water ratio. Serve the food immediately after cooking.

TABLE 8.8 Timetable for direct grilling steak

		Approximate cooking time (minutes)	
Steak	*Approximate thickness or weight (inches/weight)*	*Medium rare (145°F)*	*Medium (160°F)*
Chuck Top Blade	1	18	22
Chuck Shoulder	¾	14	17
	1	16	20
Flank	1½ to 2 lb	17	21
Ground Beef Patties	½ × 4 (4/lb)		11–13[a]
Boneless Top Loin	¾	10	12
	1	15	18
Porterhouse/T-bone	¾	10	12
	1	14	16
	1½	20 (covered)	24 (covered)
Rib	¾	6	8
	1	9	12
	1½	22 (covered)	27 (covered)
Rib Eye	¾	6	8
	1	11	14
	1½	17 (covered)	22 (covered)
Top Round	¾	8–9	not recommended
	1	16–18	not recommended
	1½	25–28 (covered)	not recommended
Top Sirloin (boneless)	¾	13	16
	1	17	21
	1½	22 (covered)	26 (covered)
	2	28 (covered)	33 (covered)
Tenderloin	1	13	15
	1½	14 (covered)	16 (covered)

Compiled from materials by National Cattleman's Beef Association (reviewed 2000).

All cook times are based on beef removed directly from the refrigerator.

[a] The FDA 1999 Food Code recommends cooking ground beef to 155°F or above for 15 seconds. USDA recommends cooking ground beef patties to 160°F.

Braising

Braising is a moist-cooking method adapted to the less tender cuts of meat. Certain cuts of veal and thin cuts of pork such as steaks are better if braised, although they are tender. The terms "pot roasting" or "fricasseeing" also apply to this method of cooking. Steps in braising are as follows:

1. Season meat and dredge with flour. Flour increases browning but may be omitted.
2. Brown meat on all sides in a small amount of fat. The meat can be browned in its own fat or added fat. Browning develops the aroma, flavor, and color of the meat. Large cuts can be browned in a heavy pot on top of the range, in a pan in the oven, or in a steam-jacketed kettle. Smaller individual pieces can be browned in a tilting fry pan, on the grill, in the oven, or in the deep-fat fryer.
3. Remove the meat and add the vegetables or mirepoix, approximately 1 ounce per pound of meat. Vegetables add flavor but can be omitted. Thicken with a roux if desired. Return the meat to the pot.
4. Add a small amount of liquid, approximately 2 cups per pound of meat. Liquid should cover one-half to one-third of the meat. Use additional liquid as needed during cooking. Liquids may be a well-seasoned meat stock, tomato juice, or appropriate jus.
5. Cover with tight-fitting lid or aluminum foil. Cook at low temperature until tender. Cook in the oven at 300°–325°F. meat may be simmered in a steam-jacketed kettle or heavy pan on top of the range. See Table 8.9 for approximate cooking times.

TABLE 8.9 Timetable for braising meat

Meat	*Cut*	*Average weight or thickness*	*Approximate total cooking time (hours)*
BEEF	Pot roast	4–6 lb	3–4 hr
	Round steak	1–2½ in	1½–3 hr
	Short ribs	2 × 2 × 4 in	1½–2½ hr
LAMB	Shanks	½ lb ea	1–1½ hr
	Riblets	¾ × 2½ × 3 in	1½–2 hr
PORK	Loin/rib chop (bone-in)	¾ in	30 min
	Boneless loin chop	1½ in	45 min
	Spareribs/back ribs		1½ hr
	Country-style ribs		1½–2 hr
	Shoulder steaks	¼ in	40–50 min
	Cubes	1–1¼ in	45–60 min
	Blade Boston (boneless)	2½–3½ lb	2–2½ hr
	Blade Boston (bone-in)	3–4 lb	2¼–2¾ hr
	Sirloin (boneless)	2½–3½ lb	1¾–2¼ hr
VEAL	Cutlets	½ × 3 × 5½ in	¾–1 hr
	Steaks or chops	½–¾ in	¾–1 hr

Compiled from materials by National Cattlemen's Beef Association, Veal Committee, National Pork Producers Council, and American Lamb Council (reviewed 2000).

TABLE 8.10 Timetable for cooking meat in liquid (large cuts and stews)

		Approximate cooking time	
Cut	*Average size or weight*	*Minutes per pound*	*Total hours*
Fresh beef	4–8 lb	40–50	3–4
Corned beef	6–8 lb	40–50	4–6
Beef shank crosscuts	1–1½ in		2–3
Lamb or veal for stew	1 in cubes		1¼–1½
Beef for stew	1–1½ in cubes		1¾–2¼
Spareribs			2–2½
Country-style ribs			2–2½
Cubes	1–1¼ in cubes		¾–1

Compiled from materials by National Cattlemen's Beef Association, National Pork Producers Council, and American Lamb Council (reviewed 2000).

Cooking in Liquid

A moist cookery method involves cooking meat covered with water or other liquid and is sometimes referred to as simmering, boiling, or stewing. This method is suitable for the least tender cuts, such as shank, neck, and brisket, and for variety meats such as heart and tongue. Following is the procedure for cooking large cuts in liquid:

1. Cover meat with liquid. Water or meat stock may be used and may be hot or cold when added to the meat. If desired, the meat may be browned first, but some cuts such as corned beef, cured and smoked meats, and variety meats generally are not browned.
2. Season with salt and pepper. Herbs, spices, and vegetables add to the variety and flavor of stewed meats. Suggested seasonings are carrots, celery, onions, bay leaves, thyme, marjoram, and parsley.
3. Cover and cook just below the boiling point until tender. Cooking may be in a steam-jacketed kettle, tilting fry pan, or a tightly covered heavy pan on top of the range. See Table 8.10 for approximate cooking times.

Stewing

Stewing is similar to braising but the meat is cut into smaller, bite-size pieces. The amount of liquid added should just cover the meat. Too much liquid will dilute the flavor of the sauce. The liquid should simmer rather than boil during cooking. See Table 8.10 for approximate cooking times.

DEGREE OF DONENESS

Proper cooking is one of the most effective ways to kill harmful bacteria and maintain quality standards. The time required to reach the optimum degree of doneness will vary depending on such things as the equipment, product temperature, product size, and quantity being cooked at one time. Exhibit VI provides color descriptions for beef steaks cooked at varying degrees of doneness. For steaks that are broiled, pan broiled, or grilled, the easiest way to determine doneness is by cutting a small slit and checking the color of the meat near the bone, or near the center of a boneless cut. Ground beef should always be cooked to 155°F or above for 15 seconds. Cooking to 160°F, which is often recommended, provides a safety factor because the time variable is removed.

Color is not always an accurate predictor for end temperature, because of the meat pH or the interaction of beef with other ingredients. End temperatures should be verified with a sanitized thermometer or thermocouple.

BEEF RECIPES

POT ROAST OF BEEF

Yield: 50 portions *Portion:* 3 oz
Oven: 450°F, then reduce to 300°F *Bake:* 30 minutes, 3 hours

Ingredient	*Amount*	*Procedure*
Beef, boneless, inside round Salt Pepper, black	18 lb 1 oz (1½ Tbsp) ½ tsp	Season meat with salt and pepper. Place in roasting pan and brown at 450°F for about 30 minutes.
Water	2 qt	When meat is browned, add water. Reduce heat to 300°F. Cover and cook slowly until tender (3 hours). Add water as necessary. When meat is done (160°–170°F), remove from pan. Let stand ½ hour before slicing.
Flour, all-purpose Water, cold	6 oz 1½ cups	Mix flour and cold water, stirring with wire whip until smooth. Add to drippings in pan.
Water (additional) Salt Pepper, black	as necessary 1 oz (1½ Tbsp) ½ tsp	Remove excess fat if necessary and add water to make 1 gal liquid. Add salt and pepper. Cook until thickened.

Approximate nutritive values per portion **Calories** 208

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 7 g	11%	**Cholest.** 92 mg	31%	**Total Carb.** 3 g	1%	**Vitamin A**	0%	**Calcium**	0%
Sat. Fat 2 g	12%	**Sodium** 490 mg	20%	Fiber 0 g	0%	**Vitamin C**	0%	**Iron**	19%
Protein 31 g				Sugars 0 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Notes

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.
- Beef chuck may be used. Increase to 20 lb (AP).
- Meat may be cooked in a steam-jacketed kettle. Brown in a small amount of fat. Add water, salt, and pepper. Cover kettle and cook until tender. Add water as necessary.
- 2 lb carrots, 2 lb celery, and 12 oz onion, cut into chunks, may be added for flavoring during last hour of cooking. See Table 1.3 for amount to use if serving vegetables as an accompaniment.

Variations

- **Savory Pot Roast or Brisket.** Place meat in baking pan. Sprinkle with 5 oz dry onion soup mix. Cover tightly with aluminum foil. Bake at 300°F for 5–6 hours. Remove foil and bake ½ hour longer. Use juice for gravy. If brisket is used, increase to 25 lb. Cooked Barbecue Sauce (p.567) may be added the last half hour of cooking.
- **Smoked Beef Brisket.** Use 25 lb well-trimmed beef brisket. Combine ⅔ cup liquid smoke, 2 Tbsp salt, 2 Tbsp onion salt, ¼ cup celery salt, ¼ cup garlic salt, ½ cup Worcestershire sauce, and 1 oz black pepper. Spread on brisket. Cover with aluminum foil. Seal. Refrigerate overnight. Bake at 275°F for 4 hours covered. Uncover and spread with Barbecue Sauce (p. 567). Bake 1 hour longer. To serve, slice in thin slices across the grain of the meat.
- **Yankee Pot Roast.** Add 1½ qt tomato puree and one bay leaf to the cooking water.

SAUERBRATEN

Yield: 50 portions *Portion:* 4 oz
Oven: 350°F *Bake:* 2–2½ hours

Ingredient	*Amount*	*Procedure*
Red cooking wine	3 cups	Heat to boiling point. Do not boil.
Red wine vinegar	2½ cups	Cool to room temperature.
Water	2½ cups	
Bay leaves	5	
Juniper berries, whole	14	
Peppercorns, black	18	
Beef, boneless, inside round	20 lb	Rub beef with salt and pepper.
Salt	4 oz	
Pepper, black	2 Tbsp	
Onions, sliced	4 lb EP	Place meat and onions in deep pans.
		Pour marinade over beef. Turn beef to moisten all sides with marinade. Cover tightly.
		Refrigerate 2 or 3 days, turning the meat twice a day if meat is not covered with marinade.
		Strain marinade and reserve to pour over beef.
		Place meat in roasting pan. Pour strained marinade over meat. Cover tightly.
		Roast at 350°F until internal temperature reaches 145°F.
		Remove meat from liquid.
		Reserve liquid for gingersnap sauce.
		Slice beef. Place in two 2-inch counter pans.

Gingersnap Sauce

Liquid from roast	3½ qt	Measure liquid from roast. Add water if needed.
Gingersnaps, crushed	1 lb	Add gingersnaps. Bring to boil, stirring constantly until mixture thickens.
		Ladle gingersnap sauce over beef. Additional sauce may be served with meat.

Approximate nutritive values per portion **Calories** 252

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 8 g	13%	**Cholest.** 102 mg	34%	**Total Carb.** 5 g	2%	**Vitamin A**	0%	**Calcium**	2%
Sat. Fat 3 g	14%	**Sodium** 936 mg	39%	Fiber 1 g	3%	**Vitamin C**	4%	**Iron**	22%
Protein 34 g				Sugars 2 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Note

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.

PEPPER STEAK

Yield: 50 portions *Portion:* 6 oz meat + 4 oz rice

Ingredient	*Amount*	*Procedure*
Beef round or sirloin, cut into thin strips Shortening	13 lb 8 oz	Cook meat in shortening in kettle or deep frypan until lightly browned, about 10 minutes.
Beef Stock (p. 599) Tomatoes, canned, diced Onions, chopped Garlic Salt	2 qt 1 No. 10 can 1 lb 3 cloves, cut in half 2 Tbsp	Add stock, tomatoes, onions, and seasonings to meat. Simmer until tender, 1–1½ hours, stirring occasionally.
Green peppers, thinly sliced in rings	12	Add green pepper and cook until tender but firm and brightly colored.
Cornstarch Water, cold Soy sauce	3 oz 2½ cups ⅔ cup	Combine cornstarch, water, and soy sauce into a smooth paste. Add to meat-vegetable mixture. Cook until thickened (approximately 5 minutes).
Rice, converted Water, boiling Salt Margarine or vegetable oil	3 lb 8 oz 4¼ qt 2 Tbsp 2 Tbsp	Cook rice according to directions on p. 399. Serve 6 oz meat mixture over 4 oz rice.

Approximate nutritive values per portion — **Calories** 401

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 11 g	**17%**	**Cholest.** 68 mg	**23%**	**Total Carb.** 32 g	**11%**	**Vitamin A**	**3%**	**Calcium**	**5%**
Sat. Fat 4 g	**18%**	**Sodium** 1021 mg	**43%**	Fiber 1 g	**5%**	**Vitamin C**	**18%**	**Iron**	**23%**
Protein 42 g				Sugars 2 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Note

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.

SWISS STEAK

Yield: 50 portions *Portion:* 5 oz
Oven: 350°F *Bake:* 1½–2 hours

Ingredient	*Amount*	*Procedure*
Beef round, sliced, ¾ inch thick	17 lb	Cut meat into portions, 3 per lb.
Flour, all-purpose Salt Pepper, black	1 lb 3 oz 2 tsp	Mix flour, salt, and pepper. Pound into meat with mallet or cleaver.
Shortening, hot	1 lb 8 oz	Brown meat in shortening. Place, slightly overlapping, in two 12 × 20 × 2-inch counter pans.
Fat (meat drippings), hot Flour, all-purpose Salt Pepper, black Water or beef stock	6 oz 6 oz 2 tsp ¾ tsp 3 qt	Make gravy according to directions on p. 564. Add 1½ qt gravy to each pan of meat. Cover tightly with aluminum foil. Bake at 350°F for 1½–2 hours.

Approximate nutritive values per portion **Calories** 363

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 21 g	32%	**Cholest.** 87 mg	29%	**Total Carb.** 10 g	3%	**Vitamin A**	0%	**Calcium**	1%
Sat. Fat 6 g	29%	**Sodium** 819 mg	34%	Fiber 0.4 g	1%	**Vitamin C**	0%	**Iron**	25%
Protein 33 g				Sugars 0 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Notes

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.
- Portioned steaks, cut 3 per pound, may be substituted for beef round. Reduce cooking time to 1½ hours.

Variations

- **Chicken-Fried Steak.** Dip portioned steaks or beef cutlets into mixture of 6 eggs and 3 cups milk, then into crumb mixture (1 lb 4 oz bread crumbs, 12 oz flour, 3 oz salt, and 2 Tbsp pepper). Brown steaks in hot shortening. Arrange slightly overlapping in lined counter pans. Cover with aluminum foil. Bake at 325°F for 30–45 minutes or until tender.
- **Country-Fried Steak.** Use beef round cut ⅜ inch thick. Proceed as for Swiss Steak but do not add gravy. Place steaks on racks in roaster or counter pans. Cover bottom of pan with water, 2 cups per pan. Cover with aluminum foil and bake. Make Cream Gravy (p. 563) to serve with the steaks.
- **Spanish Steak.** Substitute Spanish Sauce (p. 574) for gravy.
- **Steak Smothered with Onions.** Proceed as for Swiss Steak. Add 3 lb sliced onions slightly browned.
- **Baked Steak Teriyaki.** Combine 2 cups pineapple juice, drained from canned sliced pineapple, 1 qt water, 1½ cups soy sauce, ½ tsp garlic powder, ¼ tsp ginger, and ¼ cup honey. Bring to a boil. Thicken with 1½ cups cold water and ½ cup cornstarch, mixed. Pour 2 lb 8 oz mixture over each pan of browned steaks. Cover tightly. Bake at 325°F for 1–1½ hours or until tender. Garnish with green pepper rings and pineapple slices.
- **Swiss Steak with Tomatoes.** Substitute 1 No. 10 can tomatoes for the gravy. Add 8 oz chopped onions.

SALISBURY STEAK

Yield: 50 portions *Portion:* 5 oz
Oven: 325°F *Bake:* 25 minutes

Ingredient	*Amount*	*Procedure*
Ground beef Bread crumbs Eggs Onions, chopped Salt Pepper, black Milk	12 lb 8 oz 1 lb 8 oz 14 (1 lb 8 oz) 8 oz 2½ oz ½ tsp 4½ cups	Combine all ingredients and mix on low speed until blended. Do not overmix.
		Portion meat with No. 8 dipper onto lightly greased baking sheets. Flatten slightly. Bake at 325°F for approximately 25 minutes or until internal temperature reaches 180°F. Pour off grease.
Brown Gravy (p. 564)	1 gal	Serve with Brown Gravy.

Approximate nutritive values per portion **Calories** 392

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 25 g	**38%**	**Cholest.** 130 mg	**43%**	**Total Carb.** 18 g	**6%**	**Vitamin A**	**11%**	**Calcium**	**8%**
Sat. Fat 8 g	**41%**	**Sodium** 837 mg	**35%**	Fiber 1 g	**3%**	**Vitamin C**	**0%**	**Iron**	**19%**
Protein 24 g				Sugars 2 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Notes

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.
- Steaks may be browned on a grill.
- 1 oz (½ cup) dehydrated onions, rehydrated in ¾ cup water, may be substituted for fresh onions.

Variation

- **Bacon-Wrapped Beef.** To 15 lb ground beef, add 4 oz chopped green pepper, 8 oz chopped onion, 2½ cups catsup, 2 Tbsp salt, and 1 Tbsp black pepper. Shape as for Salisbury Steak and wrap one slice bacon around each portion. Place on baking sheet. Bake at 350°F for 30–45 minutes. Internal temperature must reach 155°F for 15 seconds (or 160°F).

CHUCK WAGON STEAK

Yield: 50 portions *Portion:* 6 oz
Oven: 400°F *Bake:* 10–15 minutes

Ingredient	*Amount*	*Procedure*
Ground beef patties, 3 per lb	50	Mix eggs and milk.
		Dip meat in egg mixture. Drain.
Eggs, beaten	6 (10 oz)	
Milk	1¾ cups	
Bread crumbs, dry	1 lb 3 oz	Combine bread crumbs, flour, and seasonings.
Flour, all-purpose	12 oz	Dredge steaks with crumb mixture and place 3 × 4 onto lightly greased 18 × 26-inch baking sheets.
Salt	1½ tsp	Brown steaks in 400°F oven for 10–15 minutes, or until internal temperature reaches 155°F.
Pepper, black	½ tsp	

Approximate nutritive values per portion **Calories** 374

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 22 g	**34%**	**Cholest.** 116 mg	**39%**	**Total Carb.** 14 g	**5%**	**Vitamin A**	**1%**	**Calcium**	**3%**
Sat. Fat 9 g	**43%**	**Sodium** 238 mg	**10%**	Fiber 1 g	**2%**	**Vitamin C**	**0%**	**Iron**	**18%**
Protein 27 g				Sugars 1 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Note

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.

Variation

- **Chuck Wagon Steak on a Bun.** Serve on steak bun, with lettuce and thick slices of tomato and onion.

STIR-FRIED BEEF WITH SUGAR SNAP PEAS

Yield: 50 portions *Portion:* 7 oz beef and sauce + 4 oz rice

Ingredient	*Amount*	*Procedure*
Sugar, granulated Cornstarch Pepper, white	2 Tbsp 8 oz ¾ tsp	Combine sugar, pepper, and cornstarch in steam-jacketed or other kettle.
Water, cold Beef soup base Molasses Soy sauce	1¼ gal 4 oz 4 oz 8 oz	Add gradually to dry ingredients, stirring constantly with wire whip. Cook and stir until mixture thickens and looks clear. Reduce heat. Cover and keep warm for use in final step.
Vegetable oil	¼ cup	Pour enough vegetable oil into a large or tilting frypan just to cover bottom of pan. Heat to 375°F.
Tender beef strips	5 lb	Add beef strips. Stir-fry until done, 155°F.
Garlic, minced Sugar snap peas Water chestnuts, canned, sliced, drained	1½ oz 4 lb 3 lb	Add to beef and stir-fry until peas are tender-crisp.
		Stir in sauce reserved from earlier step. Serve immediately.
Rice, converted Water Salt Margarine	3 lb 8 oz 4¼ qt 2 Tbsp 2 Tbsp	Cook rice according to directions on p. 399. Serve 7 oz beef mixture over 4 oz cooked rice.

Approximate nutritive values per portion **Calories** 270

Amount/portion	**%DV**	**Amount/portion**	**%DV**	**Amount/portion**	**%DV**		**%DV**		**%DV**
Total Fat 7 g	**11%**	**Cholest.** 24 mg	**8%**	**Total Carb.** 39 g	**13%**	**Vitamin A**	**0%**	**Calcium**	**6%**
Sat. Fat 2 g	**12%**	**Sodium** 1095 mg	**46%**	Fiber 1 g	**3%**	**Vitamin C**	**28%**	**Iron**	**18%**
Protein 12 g				Sugars 1 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Notes

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.
- Snow peas may be substituted for sugar snap peas.
- Caramel color may be used to darken sauce.

KABOBS

Yield: 50 portions *Portion:* 1 kabob
Oven: 400°F *Bake:* 15–20 minutes

Ingredient	*Amount*	*Procedure*
Beef (tender), cut in 1½-inch cubes	20 lb	Place beef in stainless steel baker's bowl.
Salad oil Soy sauce Lemon juice Worcestershire sauce Prepared mustard Garlic, fresh, minced Pepper, black	2 lb 2½ cups 2 cups 1 cup 1 cup ½ oz 1 oz (4 Tbsp)	Combine oil and seasonings. Pour over beef cubes to cover completely. Refrigerate for 24–36 hours. Drain well. Discard marinade.
Green peppers, fresh	1 lb 6 oz	Cut peppers into ¾-inch squares.
Onions, whole, canned Pineapple, fresh or fresh frozen chunks Skewers, bamboo	4 lb 2 lb 50	Thread beef cubes (5 oz), green pepper, onions, and pineapple alternately on skewer. Do not crowd. Place on oiled 18 × 26 × 1-inch baking sheets. Bake at 400°F for approximately 8–10 minutes. Turn. Continue baking for 5–10 minutes more; total 15–20 minutes, depending on degree of doneness desired (must reach at least 140°F).
Cherry tomatoes	1 lb 10 oz	Place a cherry tomato on tip of each skewer. Place in 12 × 20 × 2-inch pans with liners. Keep hot.

Approximate nutritive values per portion **Calories** 484

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 30 g	47%	**Cholest.** 91 mg	30%	**Total Carb.** 7 g	2%	**Vitamin A**	14%	**Calcium**	4%
Sat. Fat 9 g	45%	**Sodium** 1056 mg	44%	Fiber 0.4 g	2%	**Vitamin C**	48%	**Iron**	25%
Protein 44 g				Sugars 4 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Notes

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.
- Other garnishes may be substituted for those listed in recipe: tomato quarters, mandarin orange sections, carrot chunks (slightly cooked), stuffed olives, button mushrooms. Poultry or shellfish may be substituted for the beef. Marinate only 12–24 hours.

BEEF LIVER WITH SPANISH SAUCE

Yield: 50 portions *Portion:* 4 oz
Oven: 350°F *Bake:* 1 hour

Ingredient	*Amount*	*Procedure*
Beef liver, sliced, cut 5 per lb Flour, all-purpose Salt Pepper, black	10 lb 8 oz 2 oz (3 Tbsp) 2 tsp	Dredge liver with seasoned flour.
Shortening	1 lb 8 oz	Brown liver in hot shortening. Place in two 12 × 20 × 2-inch baking pans.
Spanish Sauce (p. 574)	1 recipe	Pour sauce over liver, 5 cups per pan. Cover with aluminum foil. Bake at 350°F until tender, about 1 hour depending on the degree of doneness desired. Internal temperature of liver must reach at least 145°F.

Approximate nutritive values per portion **Calories** 273

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 18 g	**28%**	**Cholest.** 284 mg	**95%**	**Total Carb.** 10 g	**3%**	**Vitamin A**	**634%**	**Calcium**	**1%**
Sat. Fat 5 g	**25%**	**Sodium** 562 mg	**23%**	Fiber 1 g	**2%**	**Vitamin C**	**26%**	**Iron**	**26%**
Protein 17 g				Sugars 0 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Notes

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.
- Liver may be soaked in milk before cooking.

Variations

- **Baked Liver and Onions.** Brown liver as above. Sauté 5 lb sliced onions in 8 oz shortening. Arrange liver in two counter pans. Spread onions over liver. Cover pans with aluminum foil. Bake 30–40 minutes.
- **Braised Liver.** Brown liver as above. Cover with sauce made of 10 oz shortening, 5 oz flour, 3 qt beef stock, 2 oz salt, and 2 tsp pepper.
- **Grilled Liver and Onions.** Have liver cut ⅜ inch thick. Preheat grill to 350°F. Oil grill slightly. Cook liver quickly, browning on one side, then turning and browning on the other side. Serve immediately with steamed or grilled sliced onions.
- **Liver and Bacon.** Dredge liver with seasoned flour and fry in bacon fat. Top each serving with one slice of crisp bacon.

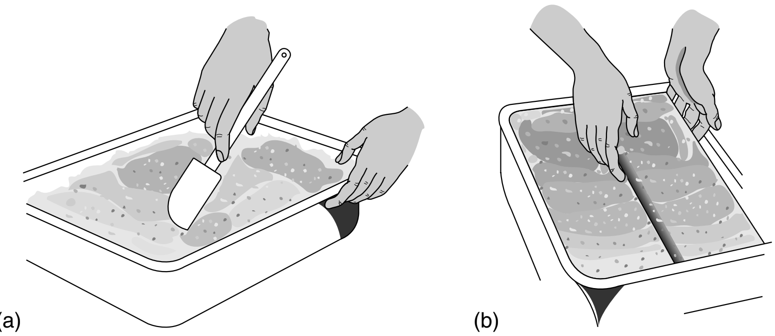


FIGURE 8.1 Shaping meat loaf. (a) Press mixture into counter pans, then smooth top. (b) Form into two loaves.

MEAT LOAF

Yield: 50 portions or 5 loaves 5 × 9 inches *Portion:* 4 oz
Oven: 325°F *Bake:* 1½ hours

Ingredient	*Amount*	*Procedure*
Ground beef	10 lb	Mix all ingredients on low speed until blended, using flat beater. Do not overmix.
Ground pork	2 lb	Press meat mixture into five 5 × 9-inch pans, 3 lb 4 oz per pan.
Bread crumbs, soft	12 oz	Bake at 325°F for approximately 1½ hours, or until internal temperature reaches 180°F.
Milk	1 qt	Meat loaf may also be made in a 12 × 20 × 4-inch counter pan.
Eggs	12 (1 lb 5 oz)	Press mixture into pan. Divide into two loaves (Figure 8.1). Increase baking time to 2 hours.
Onion, finely chopped	4 oz	
Salt	2 Tbsp	
Pepper, black	1 tsp	
Pepper, cayenne	few grains	

Approximate nutritive values per portion **Calories** 276

Amount/portion	**%DV**	**Amount/portion**	**%DV**	**Amount/portion**	**%DV**		**%DV**		**%DV**
Total Fat 18 g	**28%**	**Cholest.** 120 mg	**40%**	**Total Carb.** 6 g	**2%**	**Vitamin A**	**3%**	**Calcium**	**5%**
Sat. Fat 7 g	**36%**	**Sodium** 376 mg	**16%**	Fiber 0.3 g	**1%**	**Vitamin C**	**0%**	**Iron**	**15%**
Protein 21 g				Sugars 1 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Notes

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.
- Ground pork may be omitted. Increase ground beef to 12 lb.
- Topping of 8 oz brown sugar, 2 Tbsp dry mustard, 1¼ cups catsup, and 1 Tbsp nutmeg may be spread over loaves the last ½ hour of cooking.
- ½ oz (¼ cup) dehydrated onions, rehydrated in ½ cup water, may be substituted for fresh onions.

Variations

- **Barbecued Meatballs.** Measure with No. 8 dipper and shape into balls. Cover with 1 gal Barbecue Sauce (p. 567).
- **Italian Meatballs.** Omit cayenne pepper. Increase onion to 8 oz. Add ¼ cup minced garlic, 1 cup grated Parmesan cheese, 1 cup grated Romano cheese, 1½ cups chopped fresh parsley, and 4 tsp dried oregano leaves. Proceed as for Swedish Meatballs, p. 335. If adding to Italian Tomato Sauce, cook until partially done. Add to sauce and continue cooking until done.
- **Meatballs.** Measure with No. 8 dipper and shape into balls. Proceed as for Swedish Meatballs (p. 335) or Spaghetti with Meatballs (p. 393).
- **Vegetable Meat Loaf.** Add 2 cups catsup; 8 oz each raw carrots, onions, and celery; and 4 oz green peppers. Grind vegetables. Pour a small amount of tomato juice over loaves before baking.

SPANISH MEATBALLS

Yield: 50 portions *Portion:* 2 3-oz meatballs
Oven: 325°F *Bake:* 1½ hours

Ingredient	*Amount*	*Procedure*
Rice, converted Water Salt	1 lb 2 oz 1¼ qt 1 tsp	Cook rice (p. 399) until slightly underdone. Drain off excess liquid.
Ground beef Eggs Potatoes, cooked and mashed Onion, grated Green peppers, chopped Salt Pepper, black	12 lb 12 (1 lb 5 oz) 1 lb 4 oz 4 oz 2 oz (3 Tbsp) 1½ Tbsp	Place ground beef in mixer bowl. Add cooked rice and other ingredients. Mix until blended, using flat beater. Do not overmix.
		Form meatballs, using a No. 12 dipper. Place in a single layer on two 12 × 20 × 2-inch baking pans. Bake at 325°F for 1½ hours, or until internal temperature of meatballs reaches 180°F. Drain off fat.
Chili sauce Water	3 qt 2 qt	Mix chili sauce and water. Pour over meatballs. Cover tightly and bake an additional 30 minutes. Add more liquid if necessary.

Approximate nutritive values per portion **Calories** 348

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 18 g	**27%**	**Cholest.** 117 mg	**39%**	**Total Carb.** 25 g	**8%**	**Vitamin A**	**10%**	**Calcium**	**3%**
Sat. Fat 7 g	**34%**	**Sodium** 1344 mg	**56%**	Fiber 0.4 g	**2%**	**Vitamin C**	**17%**	**Iron**	**15%**
Protein 22 g				Sugars 7 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Notes

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.
- Spanish Sauce (p. 574) or tomato puree may be substituted for chili sauce.
- ½ oz (¼ cup) dehydrated onions, rehydrated in ½ cup water, may be substituted for fresh onions.

SWEDISH MEATBALLS

Yield: 50 portions *Portion:* 2 2½-oz meatballs
Oven: 300°F *Bake:* 1 hour

Ingredient	*Amount*	*Procedure*
Bread, cubed Milk	2 lb 8 oz 1½ qt	Soak bread in milk for 1 hour.
Ground beef Ground pork Potato, raw, grated Onion, minced Salt Pepper, black	5 lb 3 lb 1 lb 4 oz 12 oz 2 oz 2 tsp	Combine meat, potato, onion, and seasonings in mixer bowl. Add bread. Mix to blend, using flat beater. Do not overmix.
		Form meatballs, using a No. 16 dipper. Place in a single layer on baking pans. Brown in hot oven (400°F). Transfer to two 12 × 20 × 2-inch counter pans.
Meat drippings Flour, all-purpose Salt Pepper, black Milk	6 oz 6 oz 2 tsp ¾ tsp 3 qt	Add flour and seasonings to meat drippings and blend. Add milk gradually, stirring constantly with a wire whip. Cook until smooth and thickened. Pour over meatballs. Bake at 300°F for 1 hour, or until internal temperature of meatballs reaches 180°F.

Approximate nutritive values per portion **Calories** 292

Amount/portion	**%DV**	**Amount/portion**	**%DV**	**Amount/portion**	**%DV**		**%DV**		**%DV**
Total Fat 15 g	**23%**	**Cholest.** 56 mg	**19%**	**Total Carb.** 20 g	**7%**	**Vitamin A**	**4%**	**Calcium**	**16%**
Sat. Fat 6 g	**30%**	**Sodium** 768 mg	**32%**	Fiber 3 g	**11%**	**Vitamin C**	**3%**	**Iron**	**15%**
Protein 20 g				Sugars 5 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Notes

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.
- Veal or ground turkey may be substituted for part of beef.
- 1½ oz (¾ cup) dehydrated onions, rehydrated in 1 cup water, may be substituted for fresh onions.

BEEF STEW

Yield: 50 portions *Portion:* 7 oz

Ingredient	*Amount*	*Procedure*
Beef, 1-inch cubes	15 lb AP (10 lb EP)	Brown beef in kettle or oven.
Water Salt Pepper, black Worcestershire sauce	2 qt 2 oz (3 Tbsp) 2 tsp ¾ cup	Add water and seasonings to meat. Cover and simmer 2 hours. Add more water as necessary.
Potatoes, cubed Carrots, sliced or cubed Onion, cubed Celery, diced	4 lb 3 lb 1 lb 12 oz	Cook vegetables in steamer or in small amount of water in kettle or oven.
Flour, all-purpose Water	12 oz 1 qt	Mix flour and water until smooth. Add to meat and cook until thickened. Add vegetables and, if necessary, return heat to 180°F.

Approximate nutritive values per portion **Calories** 236

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 6 g	10%	**Cholest.** 77 mg	26%	**Total Carb.** 16 g	5%	**Vitamin A**	65%	**Calcium**	2%
Sat. Fat 2 g	10%	**Sodium** 543 mg	23%	Fiber 1 g	2%	**Vitamin C**	17%	**Iron**	20%
Protein 27 g				Sugars 0 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Notes

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.
- One 40-oz package of frozen green peas may be added just before serving. Reheat to serving temperature.

Variations

- **Beef Pot Pie.** Add one 40-oz package of frozen peas. Place cooked stew in two 12 × 20 × 2-inch counter pans, 13 lb per pan. Make Pastry for One-Crust Pies (p. 224). Roll out 2 lb per pan and place on stew. Bake at 425°F for 20–25 minutes.
- **Beef Stew with Biscuits.** Place hot stew in two 12 × 20 × 2-inch counter pans. Prepare ½ recipe of Baking Powder Biscuits (p. 110). Cut into 48 2½-inch biscuits. Place on hot stew, 24 per pan. Bake at 425°F for 15–20 minutes.
- **Beef Stew with Dumplings.** Drop Dumplings (p. 132) on meat mixture and steam 15–18 minutes.
- **Beef Stew with Tomatoes.** Delete carrots and celery. Add 4 lb diced canned tomatoes and 1 lb 8 oz green pepper strips the last 5 minutes of cooking.

GREEN CHILI STEW AND CORN BREAD

Yield: 50 portions *Portion:* 8 oz

Ingredient	*Amount*	*Procedure*
Beef, strips or cubes	5 lb	Brown beef in steam-jacketed or other large kettle.
Water	1 gal	Add water. Cover and simmer until tender.
Green chili peppers, canned	5 lb	Add vegetables and spices. Cover and simmer until onion is cooked (approximately 30 minutes).
Pinto beans, canned, drained	3 lb 8 oz	
Tomatoes, canned, diced	2 qt	
Onions, chopped	2 lb	
Garlic, minced	1 oz	
Salt	2½ Tbsp	
Cumin	1 Tbsp	
Oregano leaves, dried	1 Tbsp	
Corn Bread (p. 122)	1 recipe	Serve 8 oz of stew in a bowl with a wedge of Corn Bread alongside.

Approximate nutritive values per portion **Calories** 323

Amount/portion	**%DV**	**Amount/portion**	**%DV**	**Amount/portion**	**%DV**		**%DV**		**%DV**
Total Fat 10 g	**15%**	**Cholest.** 56 mg	**19%**	**Total Carb.** 41 g	**14%**	**Vitamin A**	**32%**	**Calcium**	**17%**
Sat. Fat 3 g	**15%**	**Sodium** 1014 mg	**42%**	Fiber 5 g	**18%**	**Vitamin C**	**58%**	**Iron**	**17%**
Protein 18 g				Sugars 8 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Note

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.

BEEF STROGANOFF

Yield: 50 portions or 2 gal *Portion:* 6 oz Stroganoff + 4 oz noodles

Ingredient	*Amount*	*Procedure*
Beef round, cut in ¼-inch strips	12 lb	Brown meat in shortening.
Shortening	8 oz	Add onion and seasonings.
Onion, chopped	1 lb 4 oz	
Salt	1 Tbsp	
Pepper, black	1 tsp	
Beef Stock (p. 599)	2½ qt	Add stock to meat and simmer 35–40 minutes or until meat is tender.
Flour, all-purpose	8 oz	Mix flour, water, and Worcestershire sauce and stir until smooth.
Water, cold	2 cups	Add to meat while stirring and cook until thickened.
Worcestershire sauce	¾ cup	
Mushrooms, fresh, sliced	2 lb 8 oz	Sauté mushrooms in margarine.
Margarine, melted	4 oz	
Sour cream	1 qt	Add sour cream to meat mixture, stirring constantly. Add mushrooms. Heat to 180°F.
Noodles	4 lb 8 oz	Cook noodles according to directions on p. 369. Serve 6 oz Stroganoff over 4 oz noodles.
Water	4½ gal	
Salt	2 oz	
Vegetable oil	3 Tbsp	

Approximate nutritive values per portion **Calories** 597

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 17 g	26%	**Cholest.** 92 mg	31%	**Total Carb.** 50 g	17%	**Vitamin A**	6%	**Calcium**	7%
Sat. Fat 6 g	29%	**Sodium** 1180 mg	49%	Fiber 3 g	11%	**Vitamin C**	15%	**Iron**	26%
Protein 61 g				Sugars 3 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Notes

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.
- May be served over rice. Cook 3 lb 8 oz rice in 4¼ qt water, 2 Tbsp salt, and 2 Tbsp oil. See p. 399.

Variation

- **Ground-Beef Stroganoff.** Substitute ground beef for beef round. Add 1 lb 8 oz chopped celery, ¼ cup paprika, ¼ cup Worcestershire sauce, and 2 tsp dry mustard.

CHOP SUEY

Yield: 50 portions *Portion:* 5 oz chop suey + 4 oz rice

Ingredient	*Amount*	*Procedure*
Beef, julienne strips Pork, julienne strips	5 lb 2 lb	Brown meat in steam-jacketed or other kettle.
Water Salt	2 qt 2 tsp	Add water and salt to meat. Simmer until tender.
Cornstarch Water, cold	8 oz 1¼ cups	Make a smooth paste of cornstarch and water. Pour slowly into meat and broth, stirring constantly while pouring. Cook until thickened.
Soy sauce Worcestershire sauce	1 cup 1 cup	Add soy sauce and Worcestershire sauce. Stir to blend.
Green peppers, sliced Onions, sliced Celery, diagonally sliced	4 oz 1 lb 2 lb	Steam vegetables until tender crisp.
Bean sprouts, canned, undrained	3 lb	Add bean sprouts and vegetables to meat mixture just before serving.
Rice, converted Water Salt Margarine or vegetable oil	3 lb 8 oz 4¼ qt 2 Tbsp 2 Tbsp	Cook rice according to directions on p. 399. Serve 5 oz chop suey over 4 oz rice.

Approximate nutritive values per portion **Calories** 247

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 5 g	7%	**Cholest.** 34 mg	11%	**Total Carb.** 34 g	11%	**Vitamin A**	2%	**Calcium**	6%
Sat. Fat 1 g	7%	**Sodium** 746 mg	31%	Fiber 1 g	4%	**Vitamin C**	30%	**Iron**	16%
Protein 16 g				Sugars 0 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Notes

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.
- 8 oz water chestnuts may be added.
- May be served over 2 oz chow mein noodles (6 lb) instead of rice.

Variation

- **Chicken Chow Mein.** Substitute cubed, cooked chicken or turkey for beef and pork; chicken stock for water. Delete green peppers and add 1 lb sliced mushrooms. Serve over rice or chow mein noodles.

VEGETABLE CHOW MEIN

Yield: 50 portions *Portion:* 6 oz chow mein + 2 oz noodles

Ingredient	*Amount*	*Procedure*
Water Sugar, granulated Salt Pepper, white Ginger, ground Garlic powder Soy sauce	5¼ qt 2 oz 2¼ tsp 1 tsp 1 tsp 1 tsp 1¼ cups	Combine in steam-jacketed kettle. Heat to a simmer.
Cornstarch Water Chicken base	10 oz 2¼ cups ¾ oz	Blend cornstarch, water, and soup base to a smooth paste. Add slowly to broth, stirring constantly. Cook until thickened and clear.
Bamboo shoots, canned Bean sprouts, canned Water chestnuts, canned, sliced	12 oz 1 lb 4 oz 1 lb	Drain vegetables. Rinse and drain again. Add to mixture in kettle.
Celery Onions Carrots	12 oz 8 oz 1 lb 4 oz	Cut celery into diagonal slices. Dice onions into ½-inch cubes. Cut carrots into matchsticks. Steam vegetables until tender-crisp. Add to mixture.
Pimiento, canned, chopped, drained Mushrooms, canned, drained	4 oz 1 lb	Add to mixture.
Broccoli, fresh Green peppers	1 lb 8 oz 4 oz	Divide broccoli tops into florets. Cut stalks into ¼-inch slices. Cut green peppers into ½-inch squares. Steam until tender-crisp.
		Scale sauce into two 12 × 10 × 6-inch pans, approximately 9 lb per pan. Stir 12 oz broccoli and 2 oz peppers into each pan.
Chow mein noodles	6 lb	Ladle 6 oz Chow Mein over 2 oz chow mein noodles.

Approximate nutritive values per portion **Calories** 346

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 17 g	27%	**Cholest.** 0 mg	0%	**Total Carb.** 43 g	15%	**Vitamin A**	34%	**Calcium**	3%
Sat. Fat 2 g	12%	**Sodium** 883 mg	37%	Fiber 3 g	12%	**Vitamin C**	25%	**Iron**	18%
Protein 7 g				Sugars 3 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Notes

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.
- May be served over rice instead of chow mein noodles. Cook 3 lb 8 oz rice according to directions on p. 399.

PIZZA

Yield: 48 portions or 3 pans 18 × 26 × 1 inches or 6 round 14-inch pans *Portion:* 7 oz
Oven: Baking sheet, 475°F for 10–12 minutes; round, 500°F for 5–8 minutes

Ingredient	*Amount*	*Procedure*
Dough		
Flour, all-purpose Salt Sugar, granulated Nonfat dry milk	5 lb 1½ oz 4 oz 2 oz	Place flour, salt, sugar, and dry milk in mixer bowl. Mix on low speed, using dough hook.
Yeast, active dry (see Notes) Water, warm (110°F)	1½ oz 1½ qt	Soften yeast in warm water.
Shortening	4 oz	Add softened yeast and shortening to dry ingredients. Mix on low speed to form dough. Continue kneading until smooth and elastic. Cover and let rise until double in bulk, about 2 hours.
		Punch down dough according to directions on p. 137 and let rest 45 minutes.
Pizza Sauce		
Onions, chopped Shortening or oil Tomato juice Tomato paste Sugar, granulated	12 oz 1 oz 2 qt 1 qt 2 oz	Cook onions in fat until transparent. Add tomatoes, sugar, and seasonings. Heat to boiling. Reduce heat and simmer 30–45 minutes. Cool. Remove bay leaves. Spread sauce over dough, 1 qt per 18 × 26-inch pan or 1-1¼ cups per 14-inch round pan. (See Table 8.11 for portioning guidelines.)
Oregano, dried, crumbled Basil, dried, crumbled Garlic powder Pepper, black Bay leaves	1 Tbsp 2 Tbsp 1 tsp 1 tsp 3 leaves	
Seasoned Beef		
Ground beef Salt Fennel seed Paprika Pepper, cayenne Oregano, dried, crumbled Basil, dried, crumbled	9 lb 1 Tbsp 1 tsp 1 tsp ½ tsp 1 tsp 1 Tbsp	Brown beef in steam-jacketed kettle or pan until internal temperature reads 155°F for 15 seconds. Drain well. Add seasonings, stirring to distribute. Sprinkle evenly over tomato sauce, approximately 1 lb 8 oz per 18 × 26 × 1-inch pan, 8 oz per 14-inch round pan.

TABLE 8.11 Portioning guidelines for pizza

Size (round) (in)	*Sauce (oz)*	*Cheese (oz)*	*Dough (oz)*
7	1½	2	4–6
10	3	3½	12–14
12	4	6	16–20
14	6	8	16–22
16	8	12	26

Note • Amount of dough will vary depending on whether a thin, medium, or thick crust is desired.

Notes

- Active dry yeast may be mixed with dry ingredients. See p. 136 for procedure.
- Sausage (4 lb 8 oz) may be substituted for 4 lb 8 oz ground beef. Omit fennel, paprika, cayenne pepper, and garlic.
- Dough may be mixed and refrigerated for use up to 24 hours later. Remove dough from refrigerator and let sit at room temperature for 1–1½ hours before shaping. Shape into dough rounds and let rise 1 hour before topping.
- Bake within 30 minutes after topping to prevent a doughy layer. Once the doughy layer has formed, it cannot be reversed.

Variations for Making 14" Round Pizzas

- **Ground Beef and Mushroom Pizza.** Layer in the following order: 10 oz sauce; 8 oz shredded mozzarella cheese; 8 oz seasoned ground beef; 3 oz canned sliced mushrooms, drained; and 3 oz shredded mozzarella cheese.
- **Ground-Beef Pizza Supreme.** Layer in the following order: 10 oz sauce; 8 oz shredded mozzarella cheese; 8 oz seasoned beef; 1 oz each of diced onions, chopped green peppers, and sliced ripe olives; and 3 oz shredded mozzarella cheese.
- **Pepperoni Pizza.** Layer in the following order: 10 oz sauce, 8 oz shredded mozzarella cheese, 2 oz sliced pepperoni (arranged evenly over the top), and 3 oz mozzarella cheese.
- **Triple Cheese Pizza.** Layer in the following order: 10 oz sauce, 8 oz shredded mozzarella cheese, 4 oz shredded Monterey Jack cheese, and 4 oz shredded cheddar cheese.
- **Garden Pizza.** Layer in the following order: 10 oz sauce; 6 oz shredded mozzarella cheese; 2 oz shredded cheddar cheese; 1 oz each of diced green peppers, sliced canned mushrooms, diced onion, and sliced ripe olives.

Assembly and Baking

If using 18 × 26 × 1-inch baking sheet:

1. Divide dough into three portions, 2 lb 8 oz each. Roll out very thin, stretching to fit three 18 × 26 × 1-inch baking sheets. Allow 1¼ inches to extend up sides of pan.
2. Spread 1 qt sauce over dough.
3. Sprinkle 1 lb 8 oz seasoned beef over sauce.
4. Top each pan with 1 lb 4 oz mozzarella cheese.
5. Bake at 475°F for 10–20 minutes in a conventional oven.
6. Cut each pan 2 × 4 and then each of the 8 pieces diagonally, yielding 16 pie-shaped portions per pan (48 slices).

If using 14-inch round pans:

1. Prepare six 14-inch pans by spraying lightly with vegetable spray.
2. Press 1 lb 6 oz dough into pans, allowing 1 inch to extend up sides.
3. Perforate dough with fork or dough docker.
4. Choose pizza topping from Variations and layer in the order given.
5. Bake until crust is browned, sauce is bubbly and cheese is melted. (See Table 8.12 for time and temperature guidelines.)
6. Cut each pizza into 8 slices, yielding 8 portions per pan (48 slices).

Approximate nutritive values per portion — **Calories** 502

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 21 g	33%	**Cholest.** 72 mg	24%	**Total Carb.** 50 g	17%	**Vitamin A**	21%	**Calcium**	23%
Sat. Fat 9 g	47%	**Sodium** 958 mg	40%	Fiber 4 g	15%	**Vitamin C**	42%	**Iron**	27%
Protein 28 g				Sugars 5 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

TABLE 8.12 Approximate temperatures and times for cooking pizza

Oven type	*Temp. (°F)*	*6–8 in (min)*	*10–12 in (min)*	*14–17 in (min)*
Convection	325	10–12	12–15	16–20
Conveyor	500	5–7	5–7	5–7
Conventional	450	13–15	15–18	18–22
Deck	450	13–15	15–18	18–22
Pizza Deck	500	8–10	10–12	10–14

TACO SALAD CASSEROLE

Yield: 48 portions or 3 pans 12 × 20 × 2 inches *Portion:* 8 oz

Ingredient	*Amount*	*Procedure*
Corn chips	2 lb 8 oz	Spread corn chips in bottoms of three 12 × 20 × 2-inch counter pans, 14 oz per pan.
Ground beef	8 lb AP	Brown meat in steam-jacketed kettle until internal temperature reaches 155°F for 15 seconds. Drain off fat.
Onions, minced Garlic, minced	8 oz 3 cloves	Add onions and garlic to meat. Cook until tender.
Flour, all-purpose Tomato juice	3 oz 1¼ qt	Combine flour and tomato juice and add to meat mixture.
Vinegar, cider Catsup Chili sauce Sugar, granulated Salt Pepper, black Chili powder Pepper, cayenne Hot pepper sauce Worcestershire sauce Red beans, canned	2 Tbsp 1½ cups 1 cup 2 Tbsp 2 Tbsp ½ tsp 2 tsp ¼ tsp ¾ tsp 1 tsp 3 lb 12 oz	Add to meat mixture. Blend. Heat until very hot. Scale 4 lb 5 oz meat sauce over each pan of chips. Keep warm and serve soon after vegetables are layered on top. (See Notes for an alternate assembly method.)
Lettuce, chopped Green peppers, chopped Onions, finely chopped Tomatoes, fresh, diced	4 lb 12 oz 12 oz 2 lb 10 oz	Combine vegetables. Mix gently. Sprinkle over hot meat mixture, 2 lb 8 oz per pan.
Processed cheese, shredded	2 lb 10 oz	Sprinkle 14 oz cheese over each pan. Cut 4 × 4. Serve immediately.

Approximate nutritive values per portion **Calories** 422

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 24 g	37%	**Cholest.** 60 mg	20%	**Total Carb.** 30 g	10%	**Vitamin A**	20%	**Calcium**	27%
Sat. Fat 10 g	48%	**Sodium** 1183 mg	49%	Fiber 5 g	18%	**Vitamin C**	34%	**Iron**	18%
Protein 22 g				Sugars 6 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Notes

- Potentially hazardous food. Serve within 30 minutes after preparation. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures.
- Chips will become soggy if held for very long. Spread meat on chips only as needed.
- Casserole may be assembled on each plate individually. Place ¾ oz taco chips on plate. Ladle 4 oz hot meat mixture over chips and top with 2½ oz salad mixture and ¾ oz shredded cheese.
- Serve with Salsa Sauce (p. 568) or commercial salsa.
- 1 oz (½ cup) dehydrated onion, rehydrated in ¾ cup water, may be substituted for the fresh onions that are added to the ground beef.

SPANISH RICE

Yield: 50 portions or 2 pans 12 × 20 × 2 inches *Portion:* 8 oz
Oven: 350°F *Bake:* 1 hour

Ingredient	*Amount*	*Procedure*
Rice, converted Water, boiling Salt Vegetable oil	2 lb 8 oz 3 qt 1 oz (1½ Tbsp) 2 Tbsp	Cook rice according to directions on p. 399
Ground beef	7 lb	Cook beef until internal temperature reaches 155°F.
Onions, chopped Green pepper, chopped Celery, chopped	1 lb 8 oz 8 oz 8 oz	Add onion, peppers, and celery to meat. Cook about 10 minutes.
Tomatoes, canned, diced Chili sauce Tomato paste Salt Pepper, black Pepper, cayenne Sugar, granulated Water	1 No. 10 can 3 cups 3 cups 2 oz (3 Tbsp) ¼ tsp few grains 2 Tbsp 2 cups	Add remaining ingredients to meat mixture. Combine with cooked rice. Scale into two 12 × 20 × 2-inch pans, 15 lb per pan. Bake at 350°F for 1 hour.

Approximate nutritive values per portion — **Calories** 260

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 10 g	15%	**Cholest.** 38 mg	13%	**Total Carb.** 30 g	10%	**Vitamin A**	9%	**Calcium**	5%
Sat. Fat 4 g	18%	**Sodium** 1115 mg	46%	Fiber 2 g	7%	**Vitamin C**	37%	**Iron**	15%
Protein 14 g				Sugars 4 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Notes

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.
- 3 lb bacon, diced and cooked, may be substituted for the ground beef.
- 3 oz (1½ cups) dehydrated onions, rehydrated in 2 cups water, may be substituted for fresh onions.

Variation

- **Stuffed Peppers.** Wash 25 large green peppers and remove stem end. Cut peppers in half lengthwise. Remove seeds and tough white portion. Place in baking pans and steam or parboil for 3–5 minutes. Place No. 8 dipper of Spanish Rice in each pepper half. Combine 2 50-oz cans tomato soup and 2 qt tomato sauce. Ladle 2 oz over each pepper. Bake at 350°F for 45–60 minutes. Ladle extra sauce over peppers during baking.

CHEESEBURGER PIE

Yield: 48 portions or 2 pans 12 × 20 × 2 inches *Portion:* 8 oz (6 oz meat)
Oven: 400°F *Bake:* 30–35 minutes

Ingredient	*Amount*	*Procedure*
Ground beef	12 lb AP (8 lb EP)	Brown beef in steam-jacketed or other kettle until internal temperature reaches 155°F. Drain off fat.
Onions, chopped Green peppers, chopped	1 lb 4 oz 1 lb 4 oz	Add onions and green peppers to meat. Cook until vegetables are tender.
Garlic powder Salt Chili powder Cumin, ground Pepper, cayenne Sugar, brown Tomatoes, diced, canned	1 tsp 1 oz (1½ Tbsp) 3 oz 1 tsp ¼ tsp 1 oz 7 lb 12 oz	Add seasonings and tomatoes. Simmer 30 minutes or until thick. Scale meat mixture into two 12 × 20 × 2-inch pans, 9 lb per pan.

Cheese Biscuit Topping

Flour, all-purpose Baking powder Salt Dry mustard Nonfat dry milk	2 lb 14 oz 2¾ oz (6 Tbsp) 2 Tbsp 1 tsp 7 oz	Combine dry ingredients in mixer bowl on low speed for 1 minute, using flat beater.
Shortening Processed cheese, shredded	12 oz 10 oz	Cut shortening and cheese into flour on low speed for 1–1½ minutes.
Water	1½ qt	Add water to make a thick batter. Mix only until flour is moistened.
		With No. 20 dipper, place topping 4 × 6 over meat mixture just before baking. Bake at 400°F for 30–35 minutes. Cut 4 × 6.

Approximate nutritive values per portion **Calories** 432

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 24 g	**36%**	**Cholest.** 65 mg	**22%**	**Total Carb.** 30 g	**10%**	**Vitamin A**	**20%**	**Calcium**	**24%**
Sat. Fat 8 g	**42%**	**Sodium** 892 mg	**37%**	Fiber 2 g	**9%**	**Vitamin C**	**39%**	**Iron**	**24%**
Protein 25 g				Sugars 5 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Notes

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.
- 2½ oz (1¼ cups) dehydrated onions, rehydrated in 2 cups water, may be substituted for fresh onions.

VEAL RECIPES

VEAL BIRDS

Yield: 50 portions *Portion:* 4 oz
Oven: 300°F *Bake:* 2 hours

Ingredient	*Amount*	*Procedure*
Margarine Onions, finely chopped Celery, finely chopped	8 oz 8 oz 8 oz	Sauté onion and celery in margarine.
Beef base Salt Pepper, black Sage, ground Water	1½ oz 1 tsp (see Notes) 1½ tsp 1 Tbsp 2 qt	Combine beef base, seasonings, and water. Add to sautéed vegetables.
Bread, dry, cubed	2 lb	Add bread gradually to vegetable mixture, tossing lightly until thoroughly mixed.
Veal cutlets, 4 oz	50	Place No. 16 dipper of bread mixture on each piece of meat. Roll and fasten with a pick.
Flour, all-purpose Salt Shortening	8 oz 2 oz 1 lb 8 oz	Combine flour and salt. Roll each "bird" in flour and brown in hot shortening. Place in two 12 × 20 × 2-inch counter pans.
Water	1 qt	Add 2 cups water to each pan. Cover with aluminum foil. Bake at 300°F for 1½–2 hours. (Internal temperature 165°F.)

Approximate nutritive values per portion **Calories** 414

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 19 g	**29%**	**Cholest.** 128 mg	**43%**	**Total Carb.** 17 g	**6%**	**Vitamin A**	**1%**	**Calcium**	**5%**
Sat. Fat 5 g	**23%**	**Sodium** 759 mg	**32%**	Fiber 1 g	**4%**	**Vitamin C**	**1%**	**Iron**	**12%**
Protein 42 g				Sugars 1 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Notes

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.
- Veal round, ¼-inch thick, cut into 4-oz pieces, may be substituted for the cutlets.
- 1 oz (½ cup) dehydrated onion, rehydrated in ¾ cup water, may be substituted for fresh onion.
- If beef base is highly salted, reduce or delete salt in recipe.

Variations

- **Beef Birds.** Make with beef cubed steaks or flank steaks.
- **Pork Birds.** Make with pork cutlets.
- **Veal Birds with Sausage Stuffing.** Reduce bread to 2 lb 8 oz. Reduce salt to 1 tsp and sage to 1 Tbsp. Add 2 lb 8 oz sausage, cooked and drained.

BREADED VEAL CUTLETS

Yield: 50 portions *Portion:* 4 oz
Oven: 325°F *Bake:* 45–60 minutes

Ingredient	*Amount*	*Procedure*
Veal cutlets, 4 oz Flour, all-purpose Salt Pepper, black	12 lb 8 oz 8 oz 1 oz (1½ Tbsp) ¼ tsp	Dredge cutlets with seasoned flour.
Eggs, beaten Milk Bread crumbs, fine	7 (12 oz) 1½ cups 1 lb	Combine eggs and milk. Dip cutlets in egg mixture, then roll in crumbs.
Shortening	1 lb 8 oz	Brown meat in hot fat. Place, slightly overlapping, in two 12 × 20 × 2-inch counter pans. Add 2 cups water to each pan. Cover with aluminum foil. Bake at 325°F for 45–60 minutes.

Approximate nutritive values per portion **Calories** 378

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 18 g	**28%**	**Cholest.** 159 mg	**53%**	**Total Carb.** 11 g	**4%**	**Vitamin A**	**1%**	**Calcium**	**4%**
Sat. Fat 5 g	**24%**	**Sodium** 363 mg	**15%**	Fiber 0.5 g	**2%**	**Vitamin C**	**0%**	**Iron**	**11%**
Protein 41 g				Sugars 1 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Notes

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.
- Veal round, sliced ¼ inch thick and cut into 5-oz portions, may be used.

Variations

- **Veal Cacciatore.** Dredge cutlets with flour. Brown in fat and place in baking pans. Pour over sauce made of 1 lb chopped peppers, 1 lb chopped onions, and ⅛ tsp minced garlic, simmered in margarine or butter for 10 minutes; 1 lb 8 oz sautéed sliced mushrooms; 1½ qt canned tomatoes; ¼ cup vinegar; 2 qt Chicken Stock (p. 598); 1 oz salt; and 1 tsp pepper. Bake 45 minutes.
- **Veal New Orleans.** To 2 qt medium White Sauce (p. 560), add 8 oz chopped onions, 12 oz sliced mushrooms, 2 Tbsp Worcestershire sauce, ¼ tsp salt, ¼ tsp pepper, ¼ tsp paprika, and 3½ cups tomato soup. Arrange browned breaded cutlets in two 12 × 20 × 2-inch counter pans. Pour 1¾ qt sauce over each pan. Cover with aluminum foil and bake at 325°F for 1 hour.
- **Veal Parmesan.** Add 8 oz grated Parmesan cheese to bread crumbs. After cutlets are browned and arranged in baking pans, pour 2 qt Italian Tomato Sauce (p. 573) over them. Top with 1 lb 8 oz grated mozzarella cheese. Bake at 325°F for 1 hour.
- **Veal Piccata.** Flour cutlets and brown in hot shortening. Arrange in two 12 × 20 × 2-inch counter pans. Sauté 1 lb sliced mushrooms and 2 cloves garlic, minced, in 2 Tbsp margarine. Add 2½ cups Beef Stock (p. 599) and 2 Tbsp lemon juice. Bring to a boil. Pour 2 cups over each pan. Sprinkle ¼ cup Parmesan cheese over each pan. Cover with aluminum foil. Bake at 325°F for 1 hour.
- **Veal Scallopini.** Dredge cutlets with seasoned flour and sauté in hot shortening. Arrange in baking pans. Sauté 3 lb fresh mushrooms, sliced, and 1 lb chopped onion in 8 oz margarine. Add 2 qt Chicken Stock (p. 598), 1½ cups lemon juice or vinegar, and 1 tsp each of parsley, rosemary, and oregano or marjoram. Pour over cutlets. Bake at 325°F for 1 hour.

PORK RECIPES

JEWELED PORK LOIN

Yield: 50 portions *Portion:* 4 oz
Oven: 325°F *Bake:* Approx. 2–3 hours

Ingredient	*Amount*	*Procedure*
Boneless pork loin Pepper, black	20 lb 1 Tbsp	Rub pepper over all sides of loin. Cut vertical slits 1 inch deep along top of roasts.
Prunes, pitted, dried Apricots, dried	8 oz 8 oz	Cut dried fruit into medium-size pieces. Push into the slits on top of the loin. Roast, uncovered, at 325°F until meat thermometer registers 155°F. Remove from oven and cover loosely with aluminum foil. Let stand about 15 minutes before slicing.

Approximate nutritive values per portion **Calories** 240

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 6 g	**10%**	**Cholest.** 105 mg	**35%**	**Total Carb.** 6 g	**2%**	**Vitamin A**	**4%**	**Calcium**	**1%**
Sat. Fat 2 g	**11%**	**Sodium** 75 mg	**3%**	Fiber 1 g	**3%**	**Vitamin C**	**1%**	**Iron**	**12%**
Protein 38 g				Sugars 4 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Note

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.

Variations

- **Garlic and Peppercorn Pork Loin.** Brush pork loins with olive oil. Cover with approximately 1 cup crushed peppercorns and approximately ¾ cup chopped garlic. Roast as for Jeweled Pork Loin.
- **Herbed Pork Loin.** Combine 1½ oz salt, 2 Tbsp dried whole rosemary, 2 Tbsp dried whole thyme, 3 Tbsp coarse cracked black pepper, ½ cup crushed garlic, ¾ cup fresh lemon juice, and ¾ cup vegetable oil. Rub paste over roasts. Refrigerate for several hours or overnight. Roast as for Jeweled Pork Loin.
- **Rosemary Pork Loin.** Combine ½ cup dried whole rosemary, 1 Tbsp garlic powder, 1 Tbsp cumin, and 2 tsp salt. Sprinkle over pork before roasting.
- **Teriyaki-Glazed Pork Loin.** Omit pepper and dried fruit. Make marinade by combining 2 cups soy sauce, 1 cup cooking sherry, ¼ cup sugar, 3 Tbsp black pepper, ¼ cup minced garlic, 1½ cup oil. Pour over pork loin roasts. Turn to cover all sides. Marinate in refrigerator a minimum of 8 hours or overnight. Drain marinade. Roast as for Jeweled Pork Loin.

BREADED PORK CHOPS

Yield: 50 chops *Portion:* 5 oz
Oven: 400°F, 325°F *Bake:* 10 minutes, 1 hour

Ingredient	*Amount*	*Procedure*
Pork chops, cut 3 per lb Flour, all-purpose Salt Pepper, black	17 lb 12 oz 3 oz 2 Tbsp	Dredge chops with seasoned flour.
Eggs, beaten Milk Bread crumbs	6 (10 oz) 3½ cups 1 lb 4 oz	Combine eggs and milk. Dip chops in egg mixture, then roll in crumbs. Place in single layer on greased sheet pans. Bake at 400°F until browned, about 10 minutes.
Water	1 qt	Remove chops from oven and arrange in partially overlapping rows in two 12 × 20 × 2-inch counter pans. Add 2 cups water to each pan. Cover pans. Bake at 325°F, approximately 1 hour, until internal temperature reaches 160°F.

Approximate nutritive values per portion **Calories** 239

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 11 g	**16%**	**Cholest.** 81 mg	**27%**	**Total Carb.** 15 g	**5%**	**Vitamin A**	**2%**	**Calcium**	**7%**
Sat. Fat 4 g	**20%**	**Sodium** 810 mg	**34%**	Fiber 1 g	**3%**	**Vitamin C**	**1%**	**Iron**	**10%**
Protein 20 g				Sugars 2 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Note

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.

Variations

- **Baked Pork Chops.** Dredge chops with 1 lb flour, ¼ cup vegetable oil, 2 oz salt, and 1 tsp black pepper, mixed. Place on well-greased sheet pans. Bake at 350°F until thoroughly cooked and browned, approximately 1¼ hours.
- **Baked Pork Chops and Apples.** Brown chops as for Breaded Pork Chops. Place in two greased 12 × 20 × 2-inch baking pans. Pour over 1 qt apple juice, 2 cups per pan. Bake at 350°F for 1 hour. Serve with Buttered Apples (p. 512).
- **Pork Chops and Dressing.** Serve chops with No. 16 dipper of Bread Dressing (p. 461) and ladle of gravy dipped over.
- **Stuffed Pork Chops.** Use 6-oz pork chops and cut a pocket in each chop. Fill with Bread Dressing (use ¼ recipe, p. 461) or Apple Stuffing (p. 461, ½ recipe). Brown chops and place in baking pans. Pour 2 cups water or chicken broth in each pan. Cover and bake at 350°F for 1½ hours. Internal temperature must reach 165°F for 15 seconds.

DEVILED PORK CHOPS

Yield: 50 chops *Portion:* 5 oz
Oven: 350°F *Bake:* 1½ hours

Ingredient	*Amount*	*Procedure*
Chili sauce	1½ qt	Combine into a sauce.
Water	3 cups	
Dry mustard	1 tsp	
Worcestershire sauce	3 Tbsp	
Lemon juice	3 Tbsp	
Onion, grated	2 tsp	
Pork chops, cut 3 per lb	17 lb	Dip each chop in sauce. Place in single layer on greased sheet pans. Bake at 350°F for 1–1½ hours, or until internal temperature reaches 160°F.

Approximate nutritive values per portion **Calories** 182

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 9 g	14%	**Cholest.** 54 mg	18%	**Total Carb.** 7 g	2%	**Vitamin A**	4%	**Calcium**	2%
Sat. Fat 3 g	16%	**Sodium** 446 mg	19%	Fiber 0 g	0%	**Vitamin C**	10%	**Iron**	5%
Protein 17 g				Sugars 3 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Note

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.

Variations

- **Barbecued Pork Chops.** Place chops on greased baking sheets. Brush with melted fat. Sprinkle with salt. Brown chops in 450°F oven for 12–15 minutes. Transfer to counter pans. Pour Barbecue Sauce (p. 567) over chops. Bake at 325°F for 1½ hours or until chops are tender.
- **Chili-Seasoned Pork Chops.** Prepare a spice blend by combining 6 Tbsp chili powder, 2 Tbsp ground cumin, 2 tsp garlic powder, 1 Tbsp onion powder, 1 tsp salt, and 2 tsp black pepper. Mix 1 Tbsp of the spice mixture with 1 cup vegetable oil. Cover and store for several hours to blend seasonings with oil. Save the remaining dry spice mixture to sprinkle on top of the chops. To cook chops, oil griddle with seasoned oil, heat to 350°F. Place chops on griddle and cook until browned, turn and brown other side. Sprinkle remaining seasonings lightly over chops. Place in 12 × 10 × 2-inch counter pans. Cover with foil and bake at 350°F for 1 hour.
- **Honey-Glazed Pork Chops.** Marinate pork chops for 4 hours in a mixture of 2 cups soy sauce, 6 oz honey, 1 cup applesauce, 1 oz salt, and 4 oz sugar. Place in single layer on greased baking sheets. Bake at 350°F for 1 hour. Turn and brush with marinade as needed.
- **Pork Chops Supreme.** Arrange chops in single layer in baking pans. Sprinkle with salt. Combine 1 lb brown sugar, 3 cups catsup, and 1 cup lemon juice. Place about 2 Tbsp, No. 30 dipper, on each chop. Cut 4 medium–size onions into thin slices. Place 1 slice on top of each chop. Cover and bake at 350°F for 45 minutes. Uncover and bake 30 minutes longer.

BARBECUED SPARERIBS

Yield: 50 portions *Portion:* 8 oz
Oven: 350°F *Bake:* 2½ hours

Ingredient	*Amount*	*Procedure*
Pork spareribs or loin back ribs	25 lb	Separate ribs into 8 oz portions. Place in roasting pans. Brown uncovered in oven at 350°F until browned lightly, about 30 minutes. Pour off fat.
Barbecue Sauce (p. 567)	3 qt	Pour sauce over ribs. Cover with aluminum foil. Bake at 350°F until meat is tender, about 1½ hours. Uncover and bake an additional 20–30 minutes.

Approximate nutritive values per portion **Calories** 590

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 31 g	47%	**Cholest.** 206 mg	69%	**Total Carb.** 8 g	3%	**Vitamin A**	5%	**Calcium**	2%
Sat. Fat 10 g	52%	**Sodium** 644 mg	27%	Fiber 1 g	2%	**Vitamin C**	8%	**Iron**	16%
Protein 66 g				Sugars 7 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Notes

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.
- For larger portions, use 40 lb spareribs and 1 gal Barbecue Sauce.

Variations

- **Baked Spareribs with Dressing.** Brown ribs as for Barbecued Spareribs. Pour off fat. Spread with mixture of 2 oz salt, 2 tsp pepper, 1½ tsp ground sage, 1 lb chopped apples, 2 tsp caraway seeds, 1 tsp ground cloves, and 12 oz brown sugar. Bake 1½ hours until tender. Baste to keep moist. Serve with Bread Dressing (p. 461).
- **Baked Spareribs with Sauerkraut.** Sprinkle ribs with 2 oz seasoned salt. Brown lightly. Pour off fat. Remove ribs from pan. Add 2 No. 10 cans sauerkraut to baking pan and place ribs on top. Bake for 1 hour.
- **Barbecued Short Ribs.** Substitute beef short ribs for spareribs.
- **Sweet-Sour Spareribs.** Brown spareribs for 30 minutes in 400°F oven, or simmer in water for 1 hour. Drain and cover with Sweet–Sour Sauce (p. 577). Bake at 350°F until meat is done. Serve with Steamed Rice (p. 399) or Fried Rice with Almonds (p. 402).

SWEET-SOUR PORK

Yield: 50 portions *Portion:* 5 oz pork + 4 oz rice

Ingredient	*Amount*	*Procedure*
Pork strips, julienne	10 lb AP (7 lb EP)	Brown pork in steam-jacketed kettle.
Water	2 qt	Add water to pork and simmer until meat is tender.
Vinegar Soy sauce Catsup Sugar, granulated Pineapple juice Pineapple chunks	1¼ qt 1½ cups 1½ cups 2 lb 1 qt 1 lb	Combine and add to pork. Simmer until sugar is dissolved and pineapple is hot, 10–15 minutes.
Cornstarch Water Ginger, ground Garlic powder	8 oz 2 cups 1½ tsp ½ tsp	Combine to make a smooth paste. Pour slowly into pork mixture, stirring constantly. Cook until thickened and clear.
Carrots, fresh, sliced	1 lb 12 oz	Steam carrots until tender-crisp. Add to mixture.
Snow peas	1 lb	Stir in just before serving.
Rice, converted Water, boiling Salt Margarine or vegetable oil	3 lb 8 oz 4¼ qt 2 Tbsp 2 Tbsp	Cook rice according to directions on p. 399. Serve 5 oz pork over 4 oz rice.

Approximate nutritive values per portion **Calories** 350

Amount/portion	**%DV**	**Amount/portion**	**%DV**	**Amount/portion**	**%DV**		**%DV**		**%DV**
Total Fat 6 g	**9%**	**Cholest.** 40 mg	**13%**	**Total Carb.** 59 g	**20%**	**Vitamin A**	**45%**	**Calcium**	**4%**
Sat. Fat 2 g	**10%**	**Sodium** 862 mg	**36%**	Fiber 1 g	**5%**	**Vitamin C**	**17%**	**Iron**	**13%**
Protein 17 g				Sugars 23 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Note

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.

Variations

- **Sweet-Sour Beef.** Substitute beef strips for pork.
- **Sweet-Sour Chicken.** Substitute cooked chicken or turkey for the pork. Do not brown.

GLAZED BAKED HAM

Yield: 50 portions *Portion:* 3 oz
Oven: 325°F *Bake:* 2–2½ hours

Ingredient	*Amount*	*Procedure*
Ham, boneless, fully cooked	15 lb	Place ham fat side up on a rack in roasting pan. Do not cover. Bake at 325°F for approximately 2–2½ hours.
Cloves, whole	3 Tbsp	Remove ham from oven about 30 minutes before it is done. Drain off drippings. Score ham ¼ inch deep in diamond pattern. Stud with whole cloves. Cover with glaze.

Ham Glaze

Sugar, brown	8 oz	Combine ingredients for glaze.
Cornstarch	2 Tbsp	Spoon over ham. Repeat if heavier glaze is desired.
Corn syrup	¼ cup	Return ham to oven and bake until internal temperature
Pineapple juice	2 Tbsp	reaches 155°F (see Table 8.4).

Approximate nutritive values per portion **Calories** 160

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 11 g	17%	**Cholest.** 57 mg	19%	**Total Carb.** 17 g	6%	**Vitamin A**	0%	**Calcium**	1%
Sat. Fat 4 g	18%	**Sodium** 1931 mg	80%	Fiber 0 g	0%	**Vitamin C**	61%	**Iron**	7%
Protein 23 g				Sugars 2 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Notes

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.
- If using a whole cured ham, not precooked, increase cooking time to 4–4½ hours; or simmer 3–4 hours in a kettle, then trim, glaze, and complete cooking in the oven.

Glaze Variations

- **Apricot Glaze.** 1 cup apricot jam and ¼ cup fruit juice or enough to cover ham.
- **Brown Sugar Glaze.** 6 oz brown sugar, 1½ tsp dry mustard (or 3 Tbsp prepared mustard), and ¼ cup vinegar.
- **Cranberry Glaze.** 1¼ cups strained cranberry sauce, or enough to cover.
- **Honey Glaze.** 1 cup honey, ½ cup brown sugar, and ¼ cup fruit juice. Baste with fruit juice or ginger ale.
- **Orange Glaze.** 1 cup orange marmalade and ¼ cup orange juice.

HAM LOAF

Yield: 50 portions or 5 pans 5 × 9 inches *Portion:* 4 oz
Oven: 350°F *Bake:* 1–1½ hours

Ingredient	*Amount*	*Procedure*
Ground cured ham Ground fresh lean pork Onion, finely chopped Milk Eggs, beaten Pepper, black Bread crumbs	7 lb 7 lb 4 oz 1 qt 14 (1 lb 8 oz) 1 tsp 1 lb	Combine all ingredients in mixer bowl. Mix on low speed, using flat beater, only until ingredients are blended. *Do not overmix.*
		Press meat mixture into five 5 × 9-inch loaf pans, 3 lb 8 oz per pan. Bake at 350°F for 1–1½ hours, or until internal temperature reaches 180°F. If desired, cover tops of loaves with glaze (see Variations) during last 30 minutes of cooking. Cut 10 slices per pan.

Approximate nutritive values per portion **Calories** 208

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 10 g	15%	**Cholest.** 124 mg	41%	**Total Carb.** 13 g	4%	**Vitamin A**	3%	**Calcium**	4%
Sat. Fat 3 g	17%	**Sodium** 1019 mg	42%	Fiber 0.3 g	1%	**Vitamin C**	29%	**Iron**	10%
Protein 27 g				Sugars 2 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Notes

- Potentially hazardous food. *Food Safety Standards:* Hold food for service at an internal temperature above 140°F. Do not mix old product with new. Cool leftover product quickly (within 4 hours) to below 41°F. See p. 44 for cooling procedures. Reheat leftover product quickly (within 2 hours) to 165°F. Reheat product only once; discard if not used.
- Meat may be baked in 12 × 20 × 4-inch baking or counter pan. Press mixture into pan and divide into two loaves. Increase baking time to 1½–2 hours.
- 4 lb ground beef may be substituted for 4 lb fresh pork.
- ½ oz (¼ cup) dehydrated onion, rehydrated in ½ cup water, may be substituted for fresh onion.

Variations

- **Glazed Ham Balls.** Measure with No. 8 dipper and shape into balls. Place on baking sheets. Brush with glaze (below) and bake 1 hour.
- **Glazed Ham Loaf.** Cover tops of loaves with a mixture of 1 lb 8 oz brown sugar, 1 cup vinegar, and 1½ Tbsp dry mustard.
- **Ham Patties with Cranberries.** Measure with No. 8 dipper and shape into patties. Spread pan with Cranberry Sauce (p. 513). Place ham patties on sauce and bake 1 hour.
- **Ham Patties with Pineapple.** Measure with No. 8 dipper and shape into patties. Top each with slice of pineapple and a clove. Pour pineapple juice over patties and bake 1 hour.

CREAMED HAM

Yield: 50 portions or 6¼ qt *Portion:* 4 oz (½ cup)

Ingredient	*Amount*	*Procedure*
Margarine Flour, all-purpose	1 lb 6 oz	Melt margarine. Add flour and stir until smooth. Cook 5 minutes.
Milk	1 gal	Add milk gradually, stirring constantly with wire whip. Cook until thickened.
Ham, cooked Salt Pepper, white	6 lb To taste ½ tsp	Cut ham in cubes or grind coarsely. Add to sauce and heat slowly for about 20 minutes, or until internal temperature reaches serving temperature (170–180°F). Add salt, if needed, and pepper. Serve 4 oz ham over biscuits, toast, spoon bread, corn bread, or baked potato.

Approximate nutritive values per portion **Calories** 180

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 14 g	22%	**Cholest.** 33 mg	11%	**Total Carb.** 11 g	4%	**Vitamin A**	5%	**Calcium**	10%
Sat. Fat 5 g	23%	**Sodium** 938 mg	39%	Fiber 0 g	0%	**Vitamin C**	25%	**Iron**	3%
Protein 12 g				Sugars 4 g					

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- 1 lb chopped celery or sliced mushrooms or 1 dozen chopped hard-cooked eggs may be added. Reduce ham to 5 lb.

Variation

- **Plantation Shortcake.** Substitute 3 lb cooked turkey for 3 lb cooked ham. Substitute Chicken Stock (p. 598) for half of milk in sauce. Add 1 lb grated cheddar cheese. Serve over hot corn bread.

OVEN-FRIED BACON

Yield: 50 portions *Portion:* 2 slices
Oven: 400°F; convection, 325°F *Bake:* 6–10 minutes; convection 4–6 minutes

Ingredient	Amount	Procedure
Bacon, 17–20 slices per lb	100 slices (5–6 lb)	Arrange bacon slices on baking sheets. Bake at 400°F, without turning, until crisp, about 6–10 minutes. In convection oven, cook 4–6 minutes at 325°F for 4–6 minutes. Pour off accumulating fat as necessary. Drain on paper towels or place in perforated pans for serving.

Approximate nutritive values per portion **Calories** 73

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 6 g	**10%**	**Cholest.** 11 mg	**4%**	**Total Carb.** 0 g	**0%**	**Vitamin A**	**0%**	**Calcium**	**0%**
Sat. Fat 2 g	**11%**	**Sodium** 202 mg	**8%**	Fiber 0 g	**0%**	**Vitamin C**	**7%**	**Iron**	**1%**
Protein 4 g				Sugars 0 g					

Percent Daily Values (%DV) are based on a 2000-calorie diet.

Note
- Bacon may be purchased separated and arranged on parchment paper, ready to be placed on baking sheets and baked.

Variation
- **Oven-Fried Sausage.** Arrange 1–oz sausage patties or links on baking sheets. In conventional oven, bake at 400°F for 15–20 minutes. In convection oven, bake at 325°F for 10–12 minutes.

SCRAPPLE

Yield: 50 portions or 5 loaf pans 5 × 9 inches *Portion:* 2 slices

Ingredient	Amount	Procedure
Sausage, bulk	8 lb AP	Crumble sausage and cook until internal temperature reaches 160°F. Do not overbrown. Drain off fat.
Water Salt	1½ gal 1 oz (1½ Tbsp)	Add salt to water. Bring to a boil.
Cornmeal Water, cold	3 lb 2 qt	Mix cornmeal with cold water. Pour gradually into boiling water, stirring constantly. Cook until very thick, 10–15 minutes.
		Add cooked sausage to cornmeal mixture. Scale into five greased 5 × 9-inch loaf pans, 4 lb 5 oz per pan. Cover with waxed paper to prevent formation of crust. Chill for 24 hours.
		Cut into ½-inch slices. Cook on greased grill preheated to 350°F. Grill until browned and crisp on both sides. Serve with warm syrup.

Approximate nutritive values per portion									Calories 266
Amount/portion	**%DV**	**Amount/portion**	**%DV**	**Amount/portion**	**%DV**		**%DV**		**%DV**
Total Fat 15 g	23%	**Cholest.** 38 mg	13%	**Total Carb.** 21 g	7%	**Vitamin A**	1%	**Calcium**	2%
Sat. Fat 5 g	25%	**Sodium** 792 mg	33%	Fiber 4 g	17%	**Vitamin C**	1%	**Iron**	10%
Protein 11 g				Sugars 0 g					

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Notes

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- 8 lb fresh pork, simmered until done and chopped finely, may be used in place of the sausage. Increase salt to 2 oz and add 1 Tbsp ground sage.

Variation

- **Fried Cornmeal Mush.** Delete sausage. Increase cornmeal to 4 lb, salt to 2 oz, boiling water to 2 gal, and cold water to 2½ qt. Proceed as for Scrapple.

CHEESE-STUFFED FRANKFURTERS

Yield: 50 portions *Portion:* 2 frankfurters
Oven: 350°F *Bake:* 30 minutes

Ingredient	*Amount*	*Procedure*
Frankfurters, 10 per lb	10 lb	Split frankfurters lengthwise, but do not cut completely through.
Cheddar cheese Pickle relish	3 lb 1 qt	Cut cheese into strips about 3½ inches long. Place a strip of cheese and ½ Tbsp relish in each frankfurter.
Bacon, 24–26 slices per lb	100 slices (4–5 lb)	Wrap a slice of bacon around each frankfurter. Secure with a pick. Place on greased baking sheets. Bake at 350°F for 30 minutes.

Approximate nutritive values per portion									Calories 497
Amount/portion	**%DV**	**Amount/portion**	**%DV**	**Amount/portion**	**%DV**		**%DV**		**%DV**
Total Fat 42 g	64%	**Cholest.** 86 mg	29%	**Total Carb.** 9 g	3%	**Vitamin A**	11%	**Calcium**	25%
Sat. Fat 18 g	89%	**Sodium** 1543 mg	64%	Fiber 0 g	0%	**Vitamin C**	47%	**Iron**	10%
Protein 21 g				Sugars 2 g					

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Notes

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- The names wieners, hot dogs, and frankfurters are often used interchangeably. Beef, pork, or poultry wieners are available.

Variations

- **Barbecued Frankfurters.** Place frankfurters in counter pans. Cover with Barbecue Sauce (p. 567). Bake at 400°F for about 30 minutes. Add more sauce if necessary.
- **Chili Dog.** Serve 2 oz Chili Con Carne (p. 607) over a frankfurter or wiener in a hot dog bun. Chili may be made with or without beans.
- **Frankfurters and Sauerkraut.** Steam frankfurters or cook in boiling water. Serve with sauerkraut (2 No. 10 cans) that has been heated.
- **Nacho Dog.** Serve 2 oz Nacho Sauce (p. 80) over a frankfurter or wiener in a hot dog bun. Sprinkle over the top one or more of the following: chopped green chilies or jalapeño peppers, chopped tomatoes, chopped black olives, or chopped onion.

CREAMED SAUSAGE AND BISCUITS

Yield: 50 portions *Portion:* 4 oz gravy over 2 biscuits

Ingredient	*Amount*	*Procedure*
Baking Powder Biscuits (p. 110)	100	Prepare biscuits according to recipe.
Ground sausage	7 lb 8 oz AP (5 lb EP)	Cook raw sausage in tilting or large fry pan until browned and 155°F. Weight after browning should be 5 lb. Drain well. Reserve sausage for later step.
Margarine Flour	1 lb 1 lb 6 oz	Mix margarine and flour in a steam-jacketed or other large kettle. Stir with wire whip. Cook for 10–15 minutes, stirring often.
Milk	1¾ gal	Stir milk into margarine-flour mixture, stirring constantly with a wire whip. Cook until mixture thickens.
Salt Black pepper	2 tsp 1 tsp	Add salt and pepper to creamed mixture. Stir in cooked sausage reserved from earlier step. Heat to 180°–190°F.
		Serve two biscuits split in half with 4 oz gravy.

Approximate nutritive values per portion **Calories** 425

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 31 g	**48%**	**Cholest.** 57 mg	**19%**	**Total Carb.** 17 g	**6%**	**Vitamin A**	**11%**	**Calcium**	**18%**
Sat. Fat 12 g	**61%**	**Sodium** 586 mg	**24%**	Fiber 0.4 g	**1%**	**Vitamin C**	**3%**	**Iron**	**6%**
Protein 14 g				Sugars 7 g					

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SAUSAGE ROLLS

Yield: 50 rolls *Portion:* 1 roll, 2 oz gravy
Oven: 400°F *Bake:* 20 minutes

Ingredient	*Amount*	*Procedure*
Sausages, link	12 lb 8 oz	Partially cook sausages. Remove from fat.
Flour, all-purpose Baking powder Salt Shortening Milk	3 lb 3 oz 3½ tsp 12 oz 1 qt	Make into biscuit dough, according to directions on p. 110.
		Divide biscuit dough into two portions. Roll each portion to ½-inch thickness and cut into 3 × 4-inch rectangles. Place two sausages in the center of each piece of dough and fold over. Place seam side down on greased baking sheets. Bake at 400°F for 20 minutes, until bread is browned and sausage temperature is at least 170°F.
Margarine Flour, all-purpose Salt Pepper, black Water or chicken broth	6 oz 6 oz 2 tsp ½ tsp 3 qt	Melt margarine, add flour, and blend. Add salt and pepper. Cook for 5 minutes. Add water or stock gradually, stirring constantly. Cook until smooth and thickened. Ladle 2 oz gravy over each sausage roll.

Approximate nutritive values per portion **Calories** 478

Amount/portion	%DV	Amount/portion	%DV	Amount/portion	%DV		%DV		%DV
Total Fat 33 g	**51%**	**Cholest.** 64 mg	**21%**	**Total Carb.** 26 g	**9%**	**Vitamin A**	**5%**	**Calcium**	**20%**
Sat. Fat 10 g	**52%**	**Sodium** 1360 mg	**57%**	Fiber 1 g	**3%**	**Vitamin C**	**2%**	**Iron**	**15%**
Protein 18 g				Sugars 1 g					

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Variations

- **Italian Sausage Sandwich.** Grill fifty 5- to 6-inch-long Italian sausages. Serve one sausage in a long bun with 1 oz Sandwich Tomato Sauce (p. 387) ladled on top. Serve with sauteed green peppers and onions. May be sprinkled with 1 oz shredded mozzarella cheese.
- **Pigs in Blankets.** Substitute 50 wieners for link sausages. Place each wiener diagonally on dough portion and roll up. Delete gravy. May serve with Cheese Sandwich Sauce (p. 561).
- **Pigs in Blankets with Cheese.** Wrap 1 oz cheese around each wiener. Proceed as above.